

Revision 1

1 Write odd or even.

a. 31

b. 42

c. 90

d. 87

3 What is the sum ?

$$549 + 328 = \underline{\hspace{2cm}}$$

☐ 977

☐ 867

☐ 967

☐ 877

4 Use the pictograph. How many children like mango juice best ?

Favorite juice	
Apple	☺☺☺☺☺
Orange	☺☺☺☺☺☺
Mango	☺☺☺☺

key ☺ = 2 children

☐ 4

☐ 5

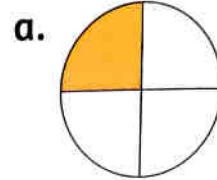
☐ 8

☐ 9

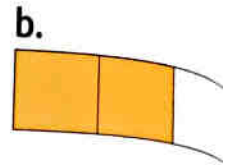
7 A grocer had 750 cans of soft drinks. He sold 415 of them.

How many cans are left ?

2 Write the fraction for the colored part of the shape.

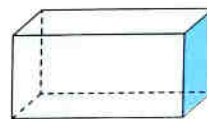


_____ (_____)



_____ (_____)

5 Name the solid and write the missing number.



Name : _____



vertices



edges



faces

6 Write the following numbers in standard form.

a. eleven

b. seventy

c. thirteen

d. eight

8 Compare using > , < or =.

a. 138 ☐ 146

b. 599 ☐ 499

c. 368 ☐ 300 + 60 + 8

Revision 2

1 Count the amount. Write the total.



175 L.E.

L.E.

Can you buy the ball?

☐ Yes ☐ No

2 Write the time.



3 Subtract.

$$\begin{array}{r} 473 \\ - 228 \\ \hline \end{array}$$

4 Follow the rule. Extend the pattern.

The rule

The pattern

a. **+3** 62, _____, _____, _____, _____, _____

b. **-2** 48, _____, _____, _____, _____, _____

5 Arrange from the smallest to the greatest.

345

354

298

346

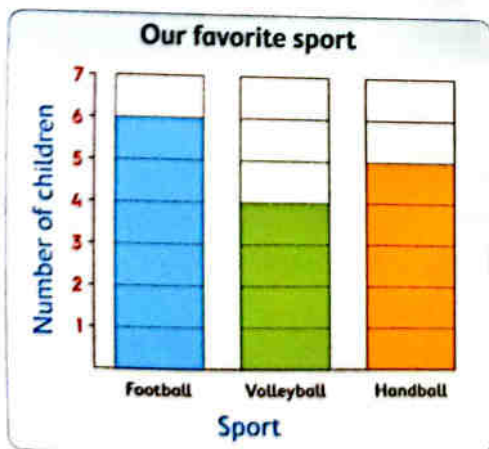
Order is : _____, _____, _____, _____

6 Choose.
Number of vertices of a cube is _____
☐ 5 ☐ 6
☐ 8 ☐ 12

7 Round each number to the nearest hundred.
a. 95 _____
b. 261 _____
c. 739 _____

8 238 hot dog sandwiches were sold. 415 burger sandwiches were sold. How many sandwiches were sold together?

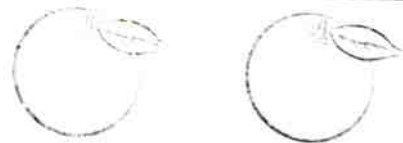
9 Use the bar graph. How many more children choose football than volleyball?



☐ 1 ☐ 2 ☐ 3 ☐ 4

10 Color to show the fraction.

a.



$\frac{1}{2}$ of the oranges are orange.

b.



$\frac{3}{4}$ of the mangoes are green.

Revision 3

1 Complete.

- $\text{---} = 700 + 50 + 4$
- Number of sides of a triangle is ---
- Two thirds = ---
- $19 - \text{---} = 10$
- Five hundred fifteen in standard form is ---

4 Choose.

$61 + 28$
is about ---

- ☐ 80 ☐ 70
☐ 90 ☐ 40

5 Draw the hour hand and the minute hand.



06:45

7 Count the amount and write the total.

a.



L.E.

b.



L.E.

9 Complete each pattern.

- 13, 15, 17, --- , --- , ---
- 89, 79, 69, --- , --- , ---
- 5, 10, 15, --- , --- , ---

2 Add to find the total.

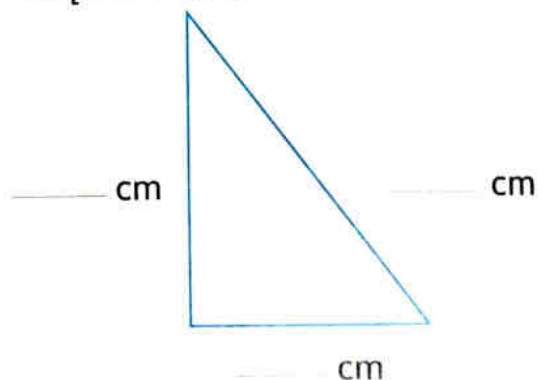
$$23 + 14 + 39 + 16$$

3 Choose.

The mass of  is about ---

- ☐ 1 gm ☐ 5 kg
☐ 50 kg ☐ 100 kg

6 Measure and write the length of required sides.



8 Omar has 354 pounds.

He gave his sister Mariam 160 pounds.
How much money does he have left?

10 Choose.

The repeated addition equation of the opposite array is ---

- ☐ $4 + 4 + 4 + 4$
☐ $3 + 3 + 3$
☐ $4 + 4$
☐ $3 + 3 + 3 + 3$



1 Complete.

- a. Number of vertices of trapezium is _____
- b. The number of rows of the array 3 by 5 is _____
- c. The value of 7 in the number 678 is _____
- d. _____ - 19 = 7

2 Dalia baked a pizza and cut it into three equal pieces. Her brother ate one of them. What fraction of the pizza left ?



The fraction is _____

3 Add.

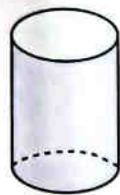
a.

$$\begin{array}{r} 257 \\ + 81 \\ \hline \end{array}$$

b.

$$\begin{array}{r} 139 \\ + 440 \\ \hline \end{array}$$

4 Name the solid and write the missing number.



Name : _____



vertices



edges



flat
faces

5 Subtract.

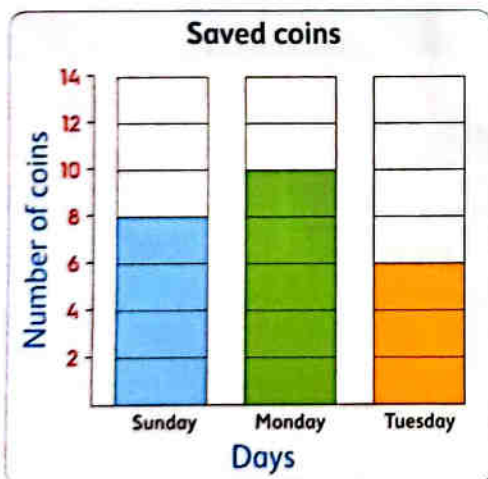
a.

$$\begin{array}{r} 459 \\ - 226 \\ \hline \end{array}$$

b.

$$\begin{array}{r} 308 \\ - 120 \\ \hline \end{array}$$

6 Use the bar graph. How many coins are saved on Monday ?



☐ 5

☐ 8

☐ 10

☐ 6

7 Arrange from the greatest to the smallest.

129

291

219

192

Order is : _____ , _____ , _____ , _____

8 Write the following numbers in words.

a. 80

b. 5

c. 14

d. 60

9 Write the time.

Then circle A.M. or P.M.



_____ : _____

Play basketball



A.M.

P.M.

10 A fruit seller bought 67 kilograms of orange and 85 kilograms of apple. What is the weight in all ?

CHAPTER

1



Learn 1 Visual and number pattern

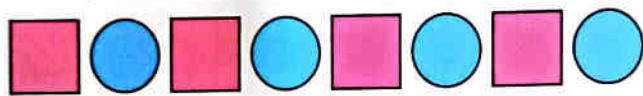
- **Pattern** is an ordered set of objects or numbers related to each other in a certain rule.

In this lesson you will learn two kinds of patterns.

Visual pattern

- **Visual pattern** is an ordered set of objects have repeated part called **pattern unit**.

Example :

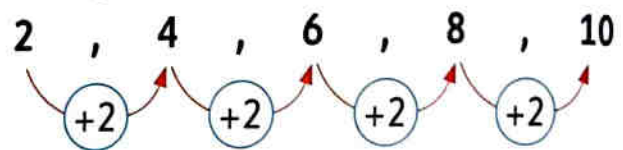


- The pattern unit is

Number pattern

- **Number pattern** is a list of numbers that follow a certain **rule**.

Example :



- The pattern rule is $+2$

Example 1

Extend the pattern.

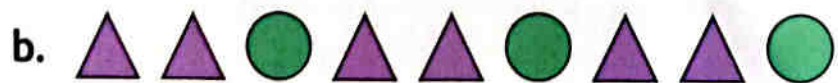


Solution



Check

Extend the pattern.



Notes for parents

- Ask your child to find examples of patterns in your home.

Example 2

Use the pattern rule to extend the pattern.

a. 10 , 20 , 30 , 40 , _____ , _____

Rule ►

b. 95 , 90 , 85 , 80 , _____ , _____

Rule ►

Solution

a. 50 , 60 Rule ►

► Note : The numbers are getting larger.

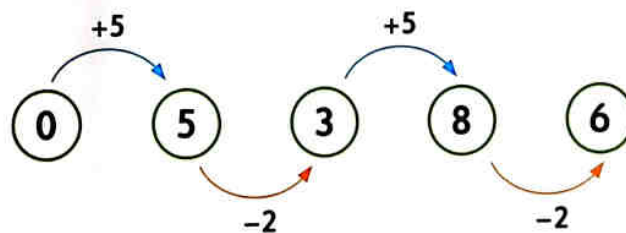
b. 75 , 70 Rule ►

► Note : The numbers are getting smaller.

Remark

- Sometimes number patterns have a rule that requires to add and subtract in the same pattern.

For example :



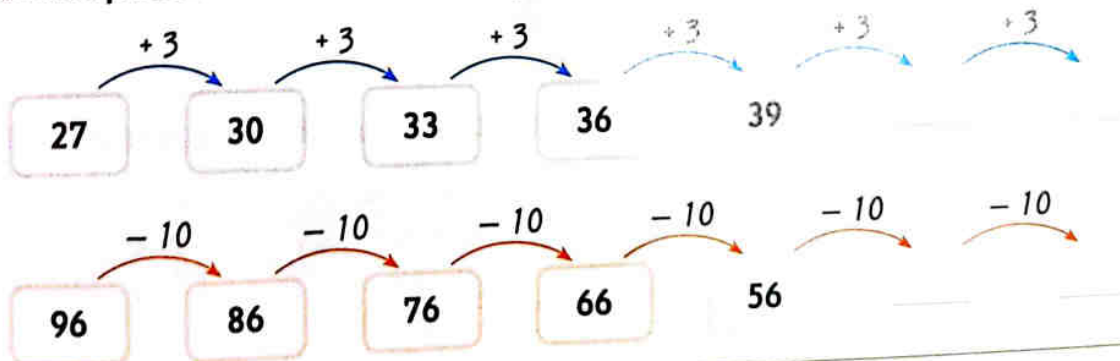
The rule is :

Notice the numbers are increasing and decreasing in the same pattern.



Check

Use the pattern rule to extend the pattern.

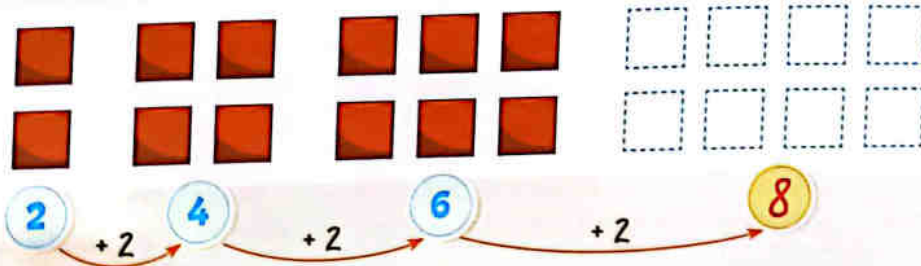


- Practice your child skip-counting by twos, threes, fours, fives and tens.
- Ask your child to find the rule and follow it to complete the patterns.

Learn 2

- In this pattern you can predict what might come next in the pattern.

Each step 2 more squares than the last step. The squares are added to the side.



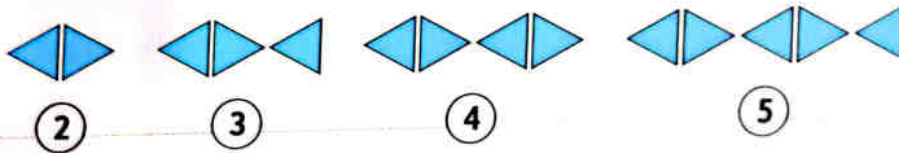
So, The next step has 8 squares.



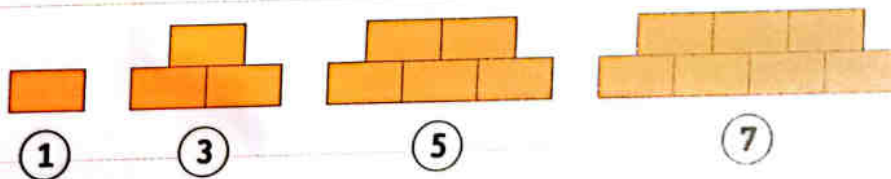
Example 3

Extend the pattern. Write the number of items you draw.

a.

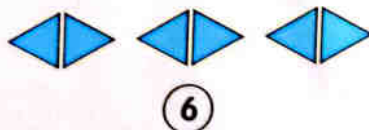


b.



Solution ✓

a.



6

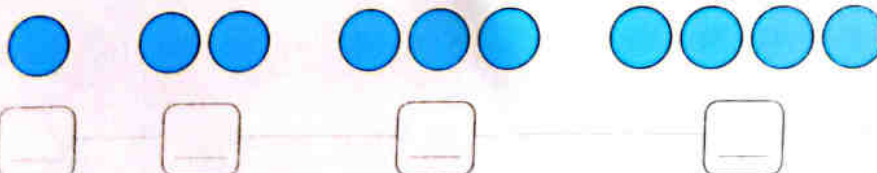
b.



9

Check ✓

Draw what might come next in the pattern. Write the number of items in each step.



Notes for parents

- Help your child to build a pattern using small objects such as : dry pasta.





Exercise

1

Patterns

On Lesson 1

1 Extend the pattern.

a.        

b.        

c. 1 2 1 2 1 2 1 2

d.        

e.        

f.         

g.      

h.         

Work area



2 Discover the pattern rule. Write the missing numbers.

Rule

a. 20 , 22 , 24 , 26 , _____ , _____

b. 70 , 65 , 60 , 55 , _____ , _____

c. 83 , 73 , 63 , 53 , _____ , _____

d. 12 , 23 , 34 , 45 , _____ , _____

e. 21 , 31 , 41 , 51 , _____ , _____

f. 49 , 46 , 43 , 40 , _____ , _____

3 Find the rule. Complete in the same pattern.

a. 30, 40, 50, 60, _____, _____

b. 39, 35, 31, 27, _____, _____

c. 98, 88, 78, 68, _____, _____

d. 63, 66, 69, 72, _____, _____

e. 33, 37, 41, 45, _____, _____

f. 120, 125, 130, 135, _____, _____

g. 95, 90, 85, 80, _____, _____

h. 49, 46, 43, 40, _____, _____

i. 10, 22, 34, 46, _____, _____

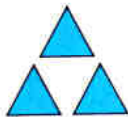
j. 24, 35, 46, 57, _____, _____

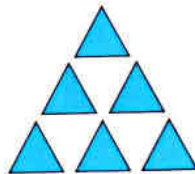
5

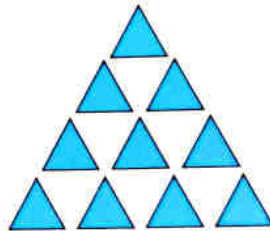
4 Draw what comes next in each pattern. Write the number of items in each step.

a.









b.



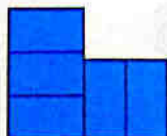


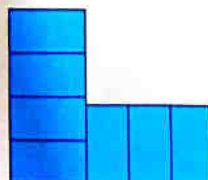


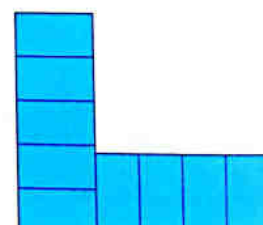


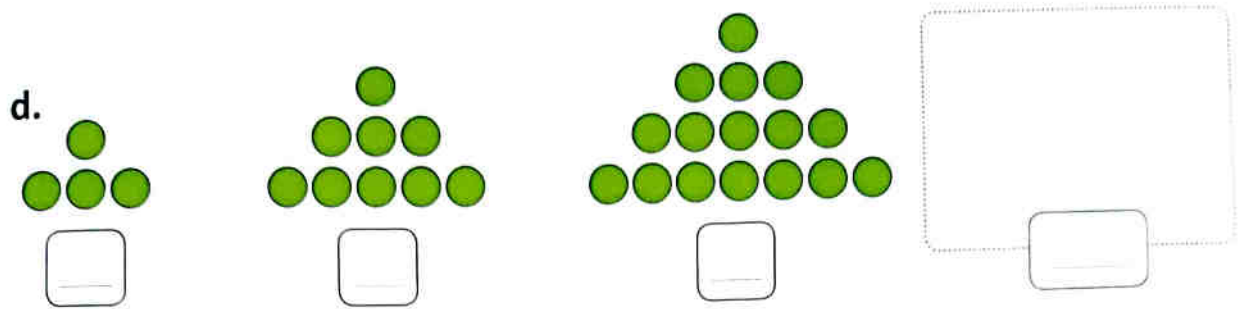
c.



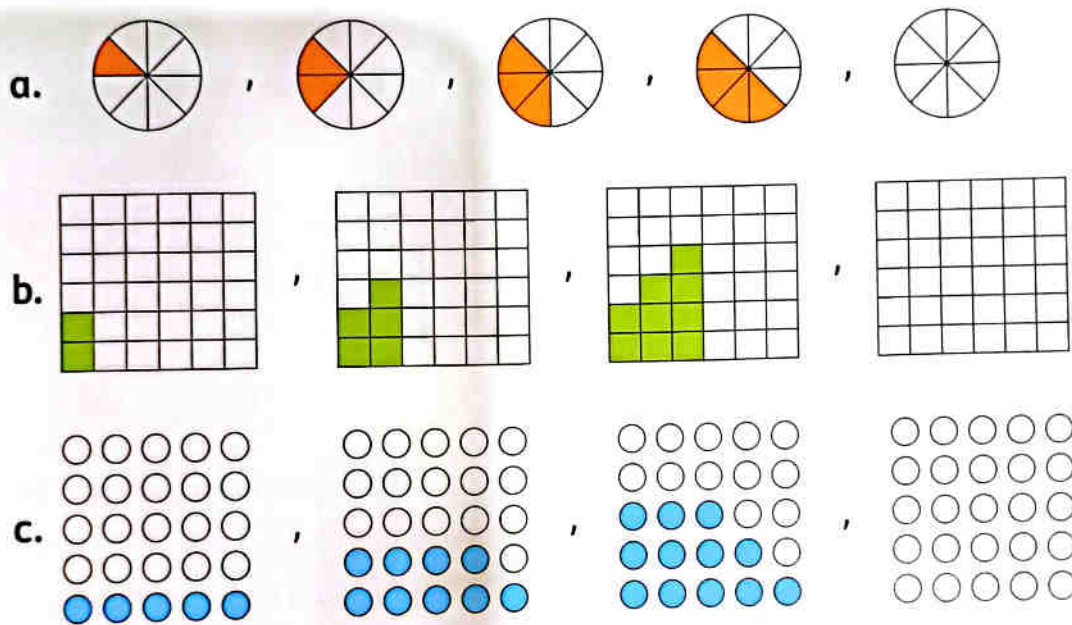








5 Color to complete the pattern.



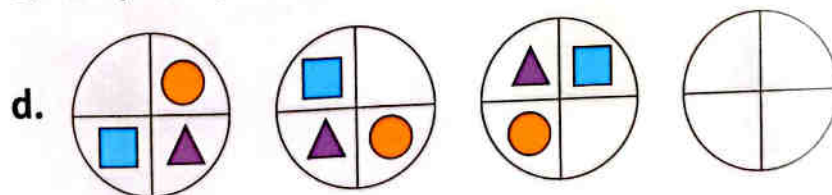
Challenge

6 Find the rule. Extend the pattern.

a. 30 , 35 , 33 , 38 , 36 , 41 , 39 , _____

b. 1 , 2 , 4 , 7 , 11 , _____

c. 1 , 1 , 2 , 3 , 5 , _____



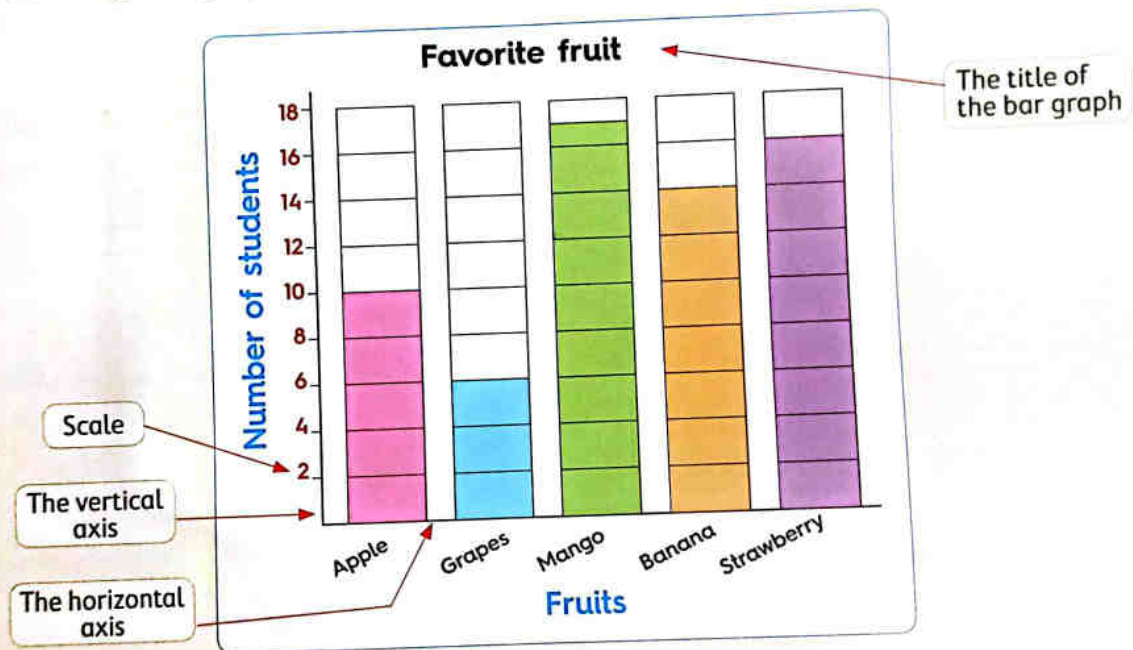
Place
a smiley
face

Remember What is a bar graph ?

- **Bar graph** is a graph that uses bars to show data.
- Each bar graph has a **scale** which is the numbers that show the units used on a bar graph.

Example

The following bar graph shows some students voted for their favorite fruit.



From the bar graph :

- Banana has 14 votes.
- Mango has 17 votes.
- Grapes has the fewest votes.
- Mango has the most votes.

Math tip

Think of each bar as a ruler that measures the number of votes.



Notes for parents

- Help your child to remember how to read a bar graph. Talk with your child how to choose the scale of bar graph.

Learn Tally marks, tally table and bar graph

- Tally mark is a mark used to record votes or other items.

Tally marks

| means 1

|||| means 5



Tally					
Number	1	2	3	4	5
Tally					
Number	6	7	8	9	10

- Tally table is a table uses tally marks to record data.

Example

This a survey about favorite time of a day. Make a tally table and then use it to make a bar graph.

Solution

Favorite times of day		
Time of Day	Tally	Number
Morning		4
Lunchtime		3
Afternoon		8
Evening		3
Night time		2

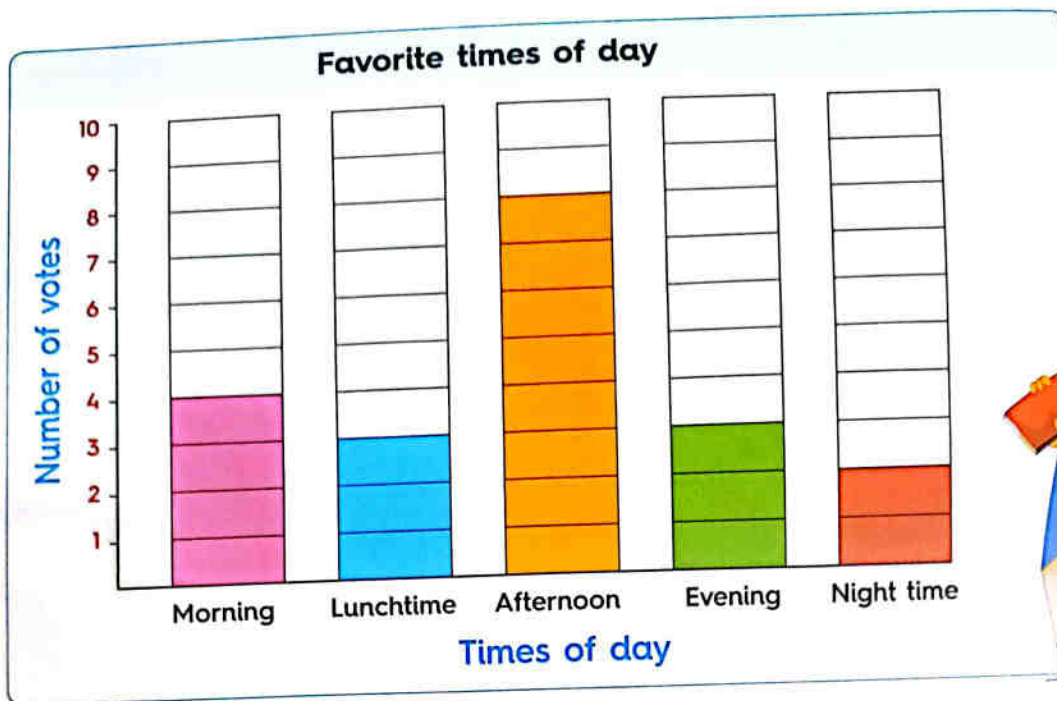
Tally table



Think

It is better to record votes by using tally table than record it by writing its name.

- Ask your child to use tally marks to count the number of girls and the number of boys in his/her family.



1

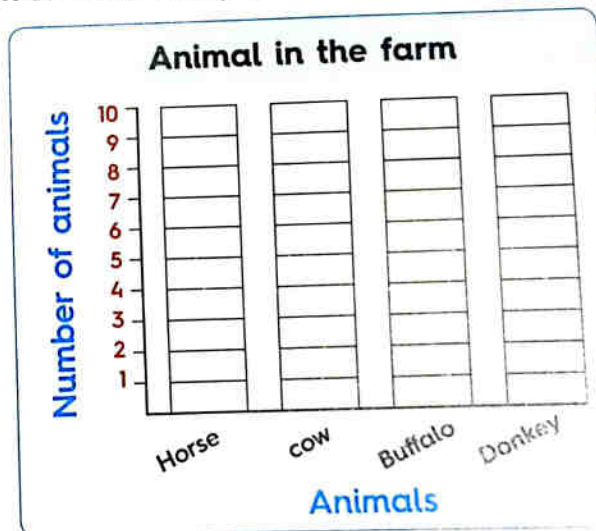
a.

Check



Complete the tally table. Color the graph to show data, then answer the questions.

Animals in the farm		
Animal	Tally	Number
Horse	II	___
Cow	IIII	___
Buffalo	IIII III	___
Donkey	III	___



- What is the number of cows in the farm ? _____
- Which animal has the greatest number ? _____
- Which animal has the least number ? _____
- How many animals are there in the farm ? _____

Notes for parents

- Ask your child to survey another favorite such as favorite animals and organize his/her data using tally table.

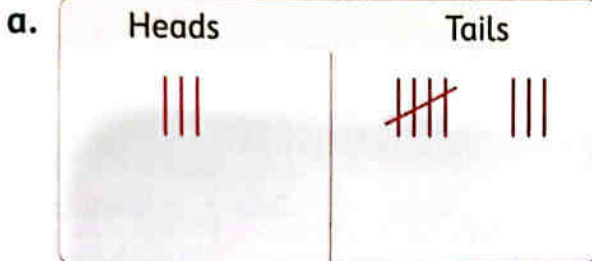
Exercise 2

Tally marks and bar graph

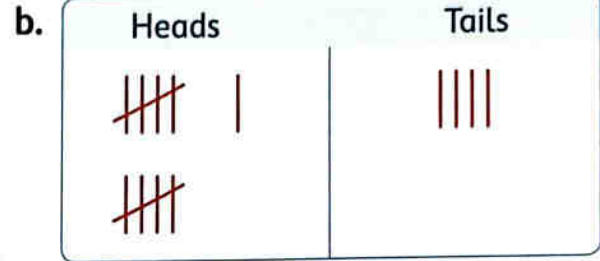
On Lesson 2

1 Here are some other tallies.

Count how many heads, how many tails, and how many in all.

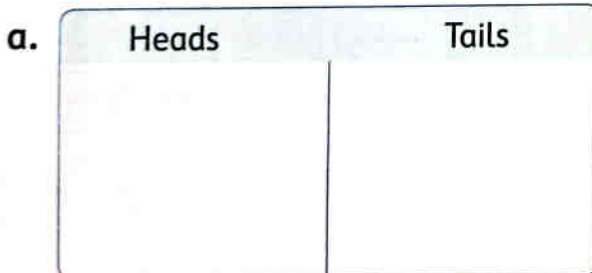


- How many heads ? _____
- How many tails ? _____
- How many in all ? _____

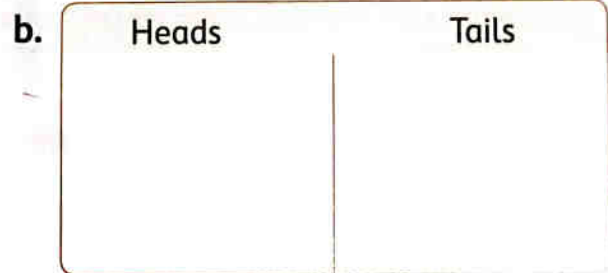


- How many heads ? _____
- How many tails ? _____
- How many in all ? _____

2 Show the tallies for each chart.



- Show 7 heads.
- Show 13 tails.
- How many in all ? _____



- Show 12 heads.
- Show 18 tails.
- How many in all ? _____



- 3** Hany made this list of the shirt colors his friends were wearing.
Make a tally table. Then answer.

a. How many children were wearing blue shirts? _____

b. What was the color of the most shirt? _____

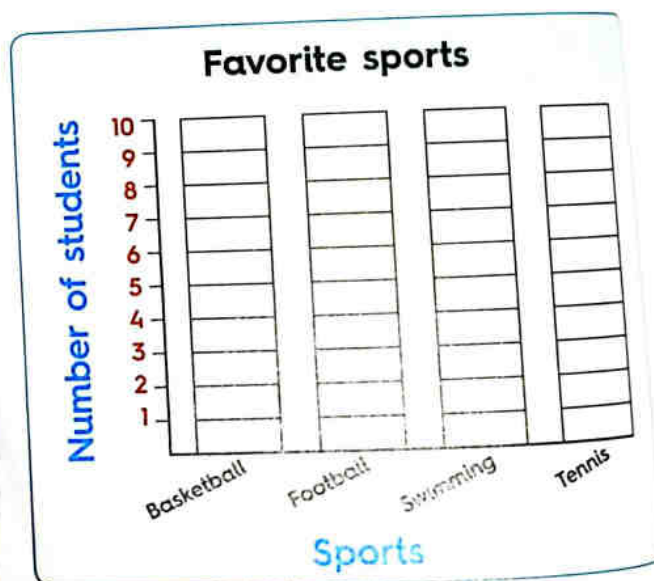
c. List the shirt color data from the least to the greatest : _____, _____, _____

Shirt color			
Blue	Red	Blue	Green
Green	Green	Blue	Red
Blue	Blue	Red	Blue
Red	Red	Blue	Red
Blue	Blue	Blue	Red

Shirt color		
Color	Tally	Number
_____		_____
_____		_____
_____		_____

- 4** Count the tallies. Write the total. Color the graph to show the data.

Favorite sports		
Sports	Number of students	Number
Basketball		_____
Football	 	_____
Swimming	 	_____
Tennis		_____








Answer the questions :

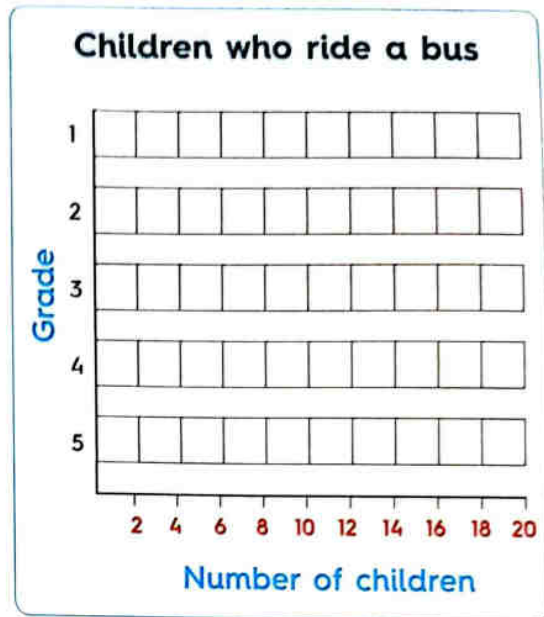
a. How many students did vote for football? _____

b. Which sport is favored by the most? _____

c. Which sport is favored by the least? _____

5 Count the tallies. Write the total. Color the graph to show the data.

Do you ride a bus to school		
Grade	Number of children	Number
1		_____
2		_____
3		_____
4		_____
5		_____



1. Answer the following questions :

- How many children in grade 4 ride the bus to school ? _____
- How many children in grade 3 ride the bus to school ? _____
- Which grade has the most children who ride the bus ? _____
- Which grade has the least children who ride the bus ? _____

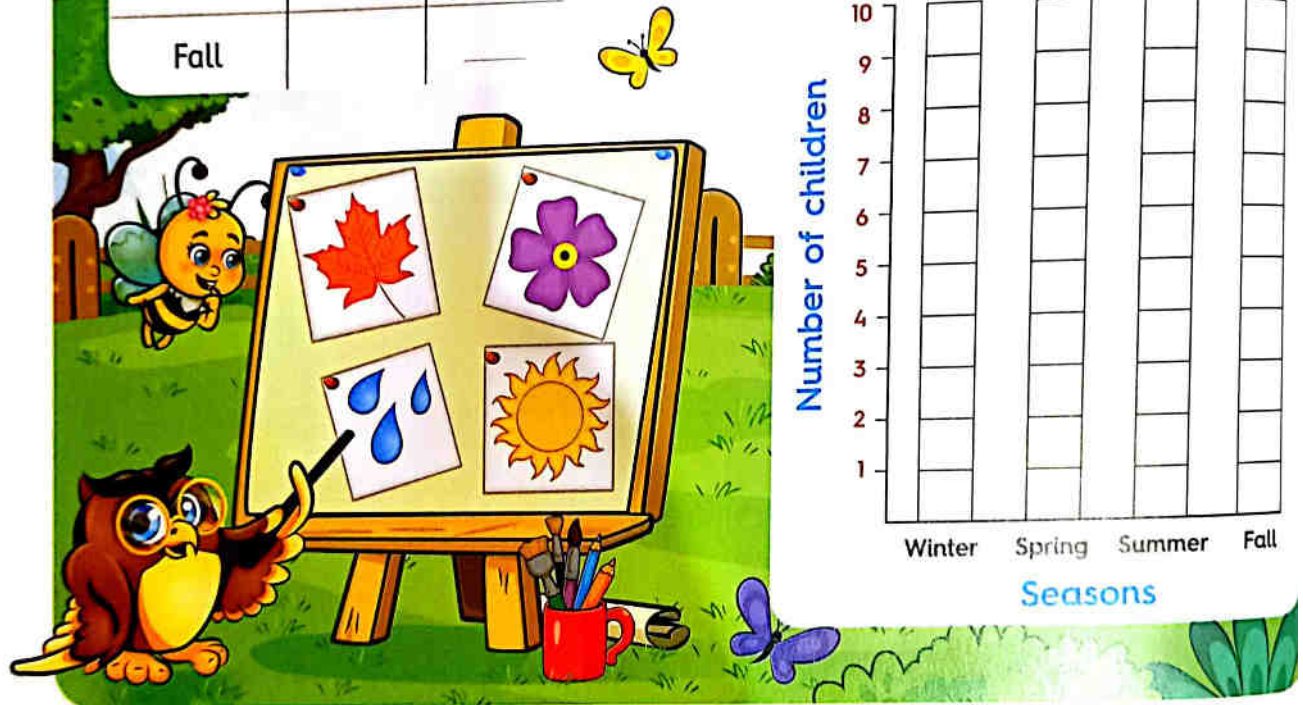
2. Put (✓) to the correct statement or (✗) to the incorrect statement.

- Number of children in grade 5 who ride bus to school is greater than number of children in grade 2 who ride bus to school. ()
- Number of children are equal in grade 2 and 3 who ride bus to school. ()
- Number of children in grade 3 who ride bus to school is 15 ()

- 6** This is a survey about our favorite season in the class.
Make a tally table and then use it to make a bar graph.

Our favorite season		
Season	Tally	Number
Winter		
Spring		
Summer		
Fall		

Summer Winter Summer Fall
Fall Winter Winter Summer
Fall Summer Summer Fall
Winter Fall Summer Spring
Spring Summer Fall Summer



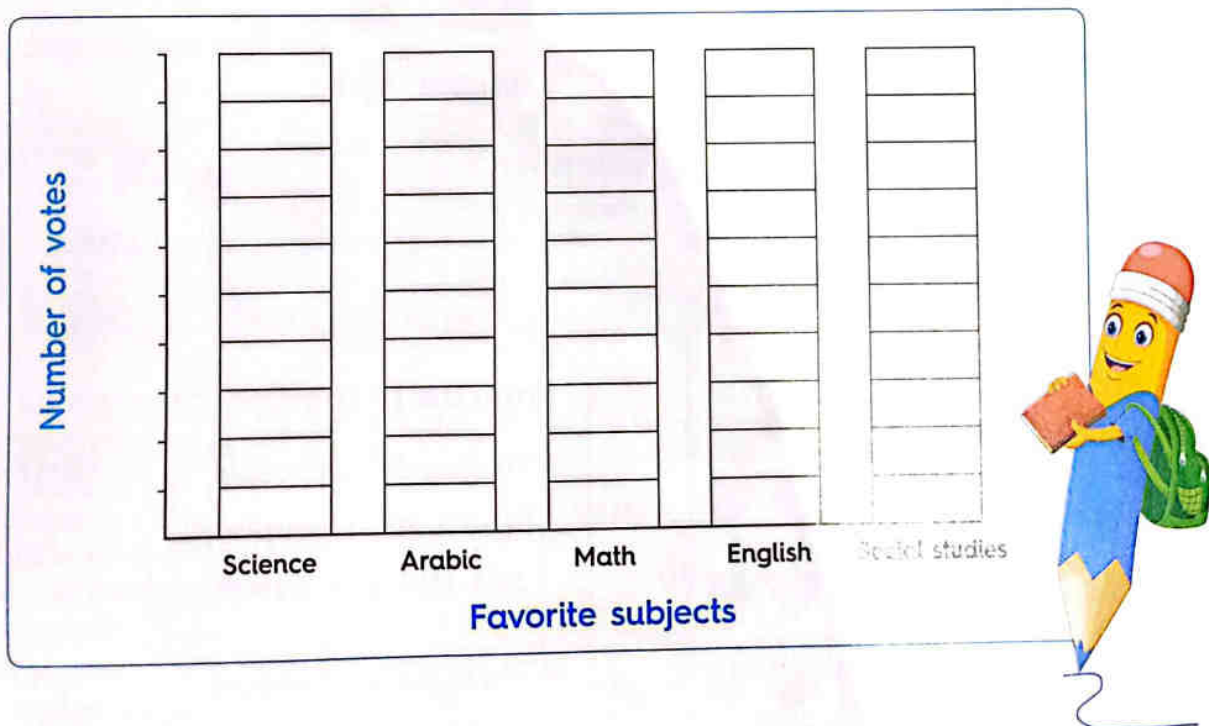
Answer the questions :

- Which season is favored by the most ? _____
- Which season is favored by the least ? _____
- How many students did vote in total ? _____

- 7** This tally table shows students favorite subjects.
Count the tallies. Write the numbers.

Favorite subject		
Subject	Tally	Number
Science		_____
Arabic		_____
Math		_____
English		_____
Social studies		_____

- You can choose the scale you use for making a bar graph.
Sometimes it is better to use certain scales than others.
Choose suitable scale to make your bar graph.



- What would happen if you used 1 as your scale ? _____



Remember Pictograph

- A pictograph is a graph that uses pictures to show data.
- Each pictograph has a key that tells how many each picture represent.

Example

Wael and Mariam each used a different key to show the same data of sports we like to watch.

Wael's Way


Sports we like to watch	
Football	       
Basketball	   
Tennis	 
Handball	  



Key  = 5 votes

From the pictograph above :

- The number of people liked football equals
 $5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 = 40$
- The number of people liked handball equal
 $5 + 5 + 5 = 15$

Mariam's Way

Sports we like to watch	
Football	   
Basketball	 
Tennis	
Handball	 

Key  = 10 votes
 = 5 votes

From the pictograph above :

- The number of people liked football equals
 $10 + 10 + 10 + 10 = 40$
- The number of people liked handball equal
 $10 + 5 = 15$

Math tip

If a pictograph uses a key of 10, then count each half image as 5

**Notes for parents**

- Make sure that your child understand that the key tells how many each picture stands for.

Example

Use the opposite tally table to make a pictograph, then convert the same data into a bar graph and answer the following questions :

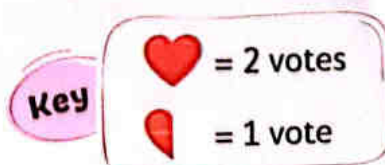
- How many people liked peas ? _____
- How many people liked Corn ? _____
- Which vegetable liked the most ? _____
- Which vegetable liked the least ? _____
- How many people in all liked carrots and beans ? _____
- How many more people liked peas more than cucumber ? _____

Favorite vegetable	
Vegetable	Tally
Carrots	
Corn	
Cucumber	
Beans	
Peas	

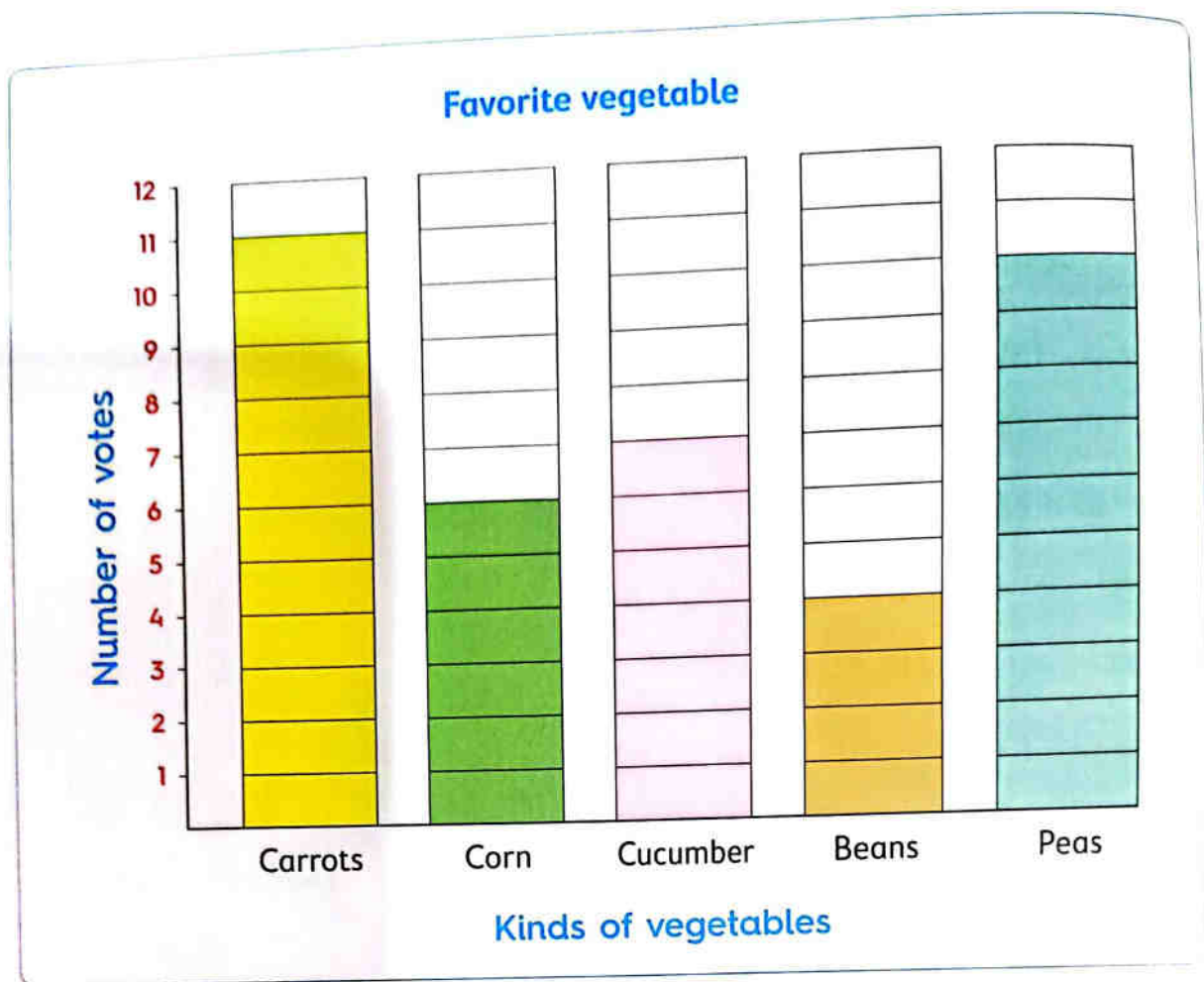
Solution

Favorite vegetables		
Vegetable	Tally	Number
Carrots		11
Corn		6
Cucumber		7
Beans		4
Peas		10

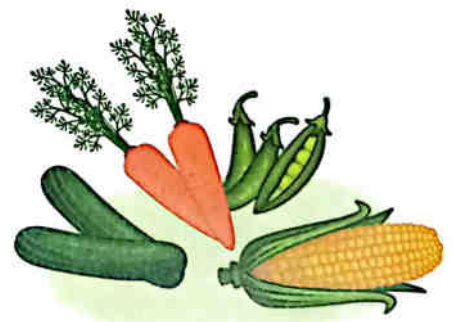
Favorite vegetable	
Carrots	
Corn	
Cucumber	
Beans	
Peas	



- Help your child to use the pictograph to answer the questions and help him/her to solve the problems.



- Number of people who liked peas is **10**.
- Number of people who liked corn is **6**.
- The vegetable that liked the most is **carrots**.
- The vegetable that liked the least is **beans**.
- Number of people who liked carrots and beans in all is $11 + 4 = 15$
- Number of people who liked peas more than cucumber is $10 - 7 = 3$



Notes for parents

- Ask your children more questions about data and help him/her to solve it.

Check



Use the tally table make the pictograph.

Favorite Zoo Animals		
Animal	Tally	Number
Monkey		
Lion		
Penguin		
Polar bear		
Alligator		

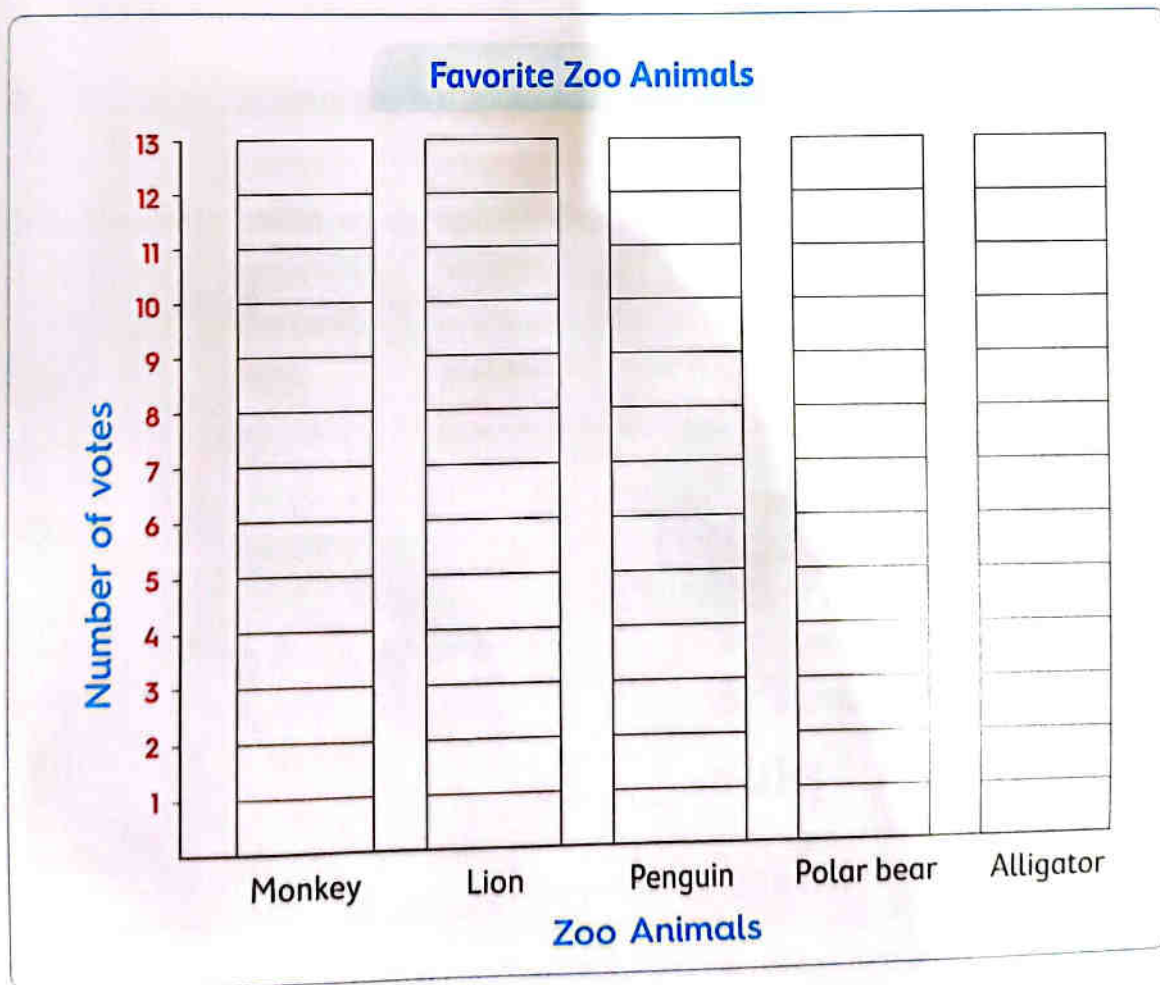
Favorite Zoo Animals	
Monkey	
Lion	
Penguin	
Polar bear	
Alligator	

Convert the same data into a bar graph.

key



= 2 votes



- Ask your child to understand that pictographs are good graphs to use when showing large quantities of data.

Answer the following questions :

1. How many votes did the alligator get ? _____

2. How many votes did the monkey get ? _____

3. How many votes did the polar bear get ? _____

4. Which zoo animal got the most votes ? _____

5. Which zoo animal got the fewest votes ? _____

6. The lion got more votes than polar bear.
How many more votes did the lion get ?

_____ _____ = _____

7. How many votes did the monkey and the alligator get in all ?

_____ _____ = _____



Now at all bookstores

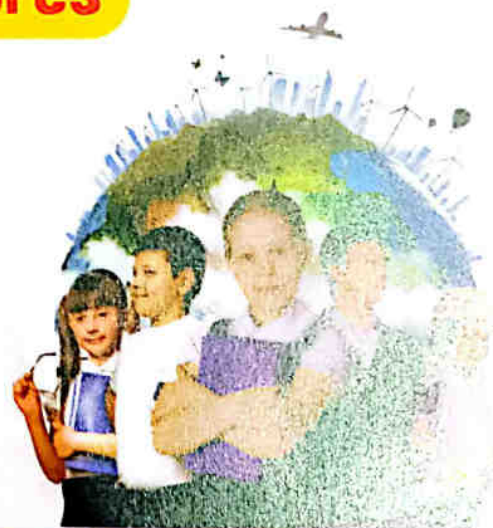


EL-MOASSER

in

**Discover &
Connect plus**

For 3rd primary



Notes for parents

- Help your child to use the tally table, the pictograph or the bar graph to answer the questions.

1 Use the tally table to complete the pictograph.

Favorite Drinks	
Drinks	Tally
Water	
Juice	
Milk	

Favorite Drinks	
Water	
Juice	
Milk	

Key  = 2 children

• Use the pictograph.

- a. How many children chose milk ? _____ children.
- b. How many more children chose juice than water ? _____ more children.

2 Use the tally table to complete the pictograph.

Favorite pizza topping		
Type	Tally	Number
Pepperoni		_____
Vegetables		_____
Sausage		_____
Extra cheese		_____

Favorite pizza topping	
Pepperoni	
Vegetables	
Sausage	
Extra cheese	

Key  = 2 pizza

- a. How many children liked vegetables best ? _____ children.
- b. Which type of topping is liked the most ? _____
- c. How many more children liked pepperoni than extra cheese ? _____ more children.

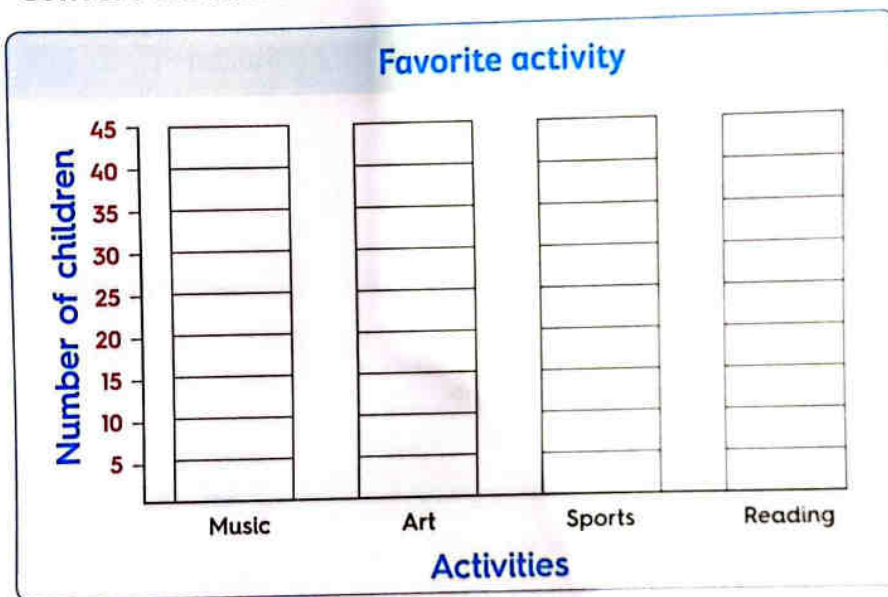
3 Complete the tally table, then use it to make a pictograph.

Favorite activity		
Activity	Tally	Number
Music		_____
Art		_____
Sports		_____
Reading		_____

Favorite activity	
Music	_____
Art	_____
Sports	_____
Reading	_____

Key Each 😊 = 5 people

• Convert the same data into a bar graph.









1. Answer following questions.

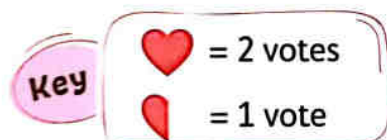
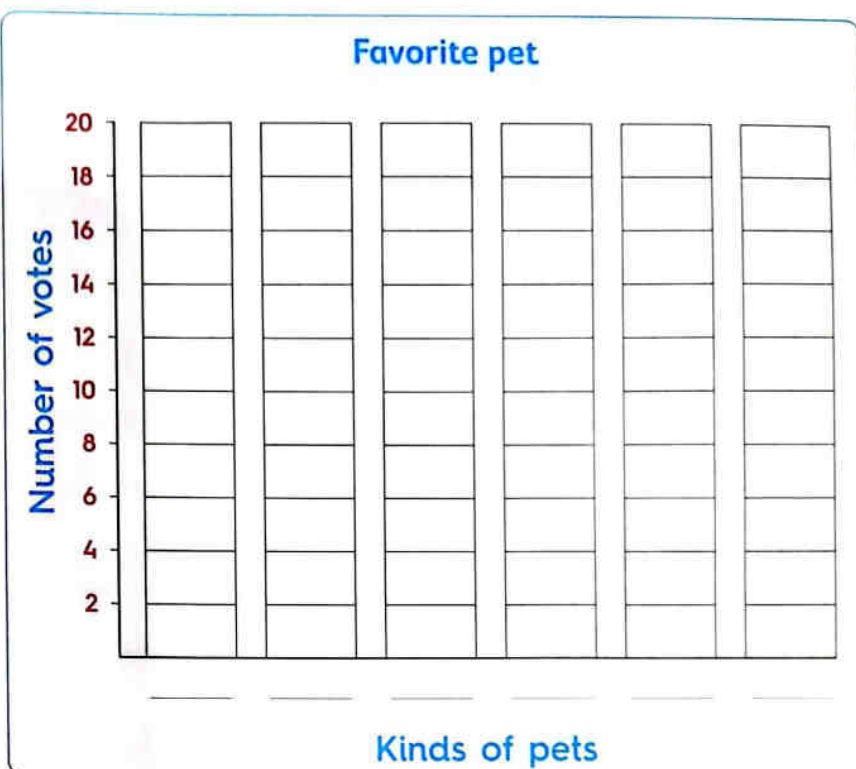
- How many people liked music best ? _____ people.
- Which activity is liked the least ? _____
- Which activity is liked the most ? _____
- How many people in all liked art and sports activities ? _____ people.
- How many people liked sports more than art ? _____

2. Compare. Write ">, = or <".

- Number of people who liked reading. ○ Number of people who liked art.
- Number of people who liked sports. ○ Number of people who liked music.

- 4** Convert the same information from the pictograph into a bar graph, then answer the questions.

Favorite pet	
Fish	
Cats	
Dogs	
Turtles	
Birds	
Hamsters	



- 1.** Use the bar graph to complete using $>$, $=$ or $<$.

- | | |
|--|---|
| a. Number of students who liked cats | <input type="radio"/> Number of students who liked turtles |
| b. Number of students who liked fish | <input type="radio"/> Number of students who liked birds |
| c. Number of students who liked hamsters | <input type="radio"/> Number of students who liked dogs |
| d. Number of students who liked dogs | <input type="radio"/> Number of students who liked birds |
| e. Number of students who liked turtles | <input type="radio"/> Number of students who liked hamsters |
| f. Number of students who liked fish | <input type="radio"/> Number of students who liked cats |

2. Use the bar graph to answer the questions.

- How many students liked cats ? _____
- How many students liked turtles ? _____
- How many students liked fish and hamsters ? _____
- How many students liked dogs and birds ? _____
- How many more students liked cats than fish ? _____
- How many more students liked dogs than turtles ? _____
- How many students liked turtles, birds and hamsters altogether ? _____



3. Use the bar graph to write (✓) to the correct statement and (X) to the incorrect statement.

- The number of students who liked dogs is 9 ()
- The number of students who liked cats and dogs altogether is 34 ()
- The number of students who liked fish is more than the number of students who liked birds by 1 ()



Challenge

Use the pictograph and the tally table to complete the key.

Favorite color	
Blue	♥♥♥♥♥
Green	♥♥♥♥♥♥♥
Red	♥♥♥♥♥♥♥♥♥
Yellow	♥♥♥♥♥

Key

Each ♥ = _____ votes

Favorite color	
Type	Tally
Blue	
Green	
Red	
Yellow	

Place
a smiley
face

Learn

What is a line plot ?

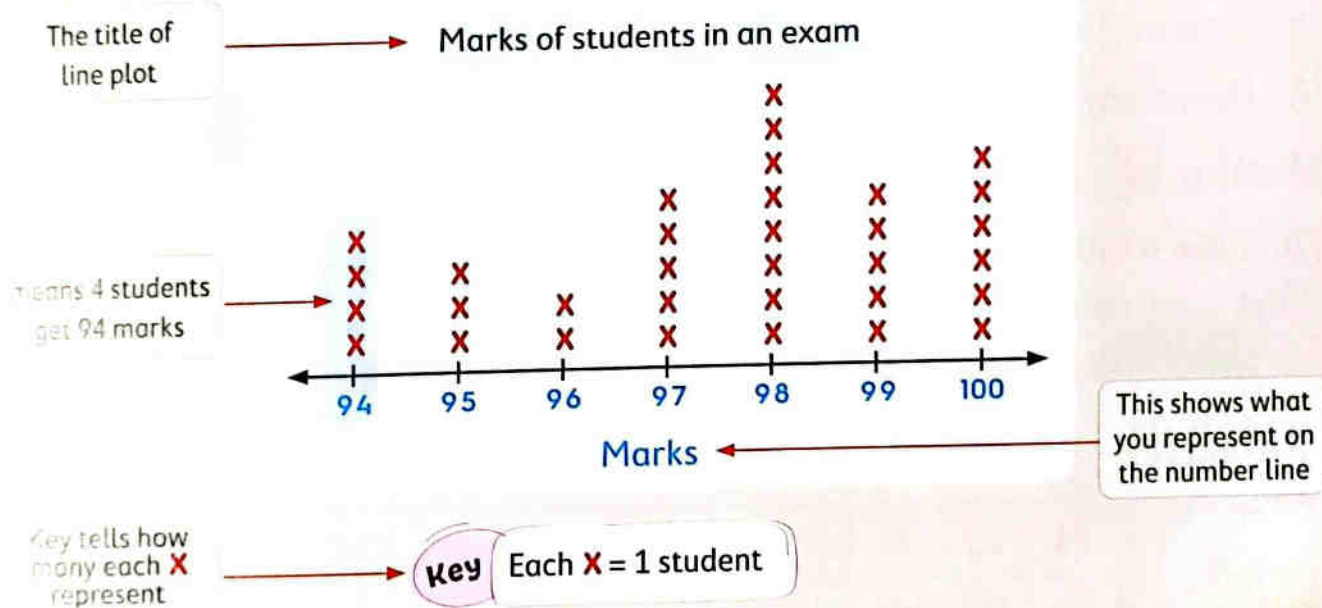
- Line plot is a graph shows how many times something happened.
- It is a graph that shows the data as **X**'s above a number line.

Example

The following table shows the marks of students in an exam :

Marks	94	95	96	97	98	99	100
Number of students (frequency)	4	3	2	5	8	5	6

You can show these data using a line plot as follows :



From the graph :

- The number of students who get 98 marks is 8 students.
- The number of students who get smaller than 98 is $5 + 2 + 3 + 4 = 14$ students.
- The number of students who get greater than 98 is $5 + 6 = 11$ students.
- The number of students who get the highest mark is 6 students.
- The number of students who get the lowest mark is 4 students.

Notes for parents

- Tell your child that the "frequency" means how many times a piece of data appears.

Example

The following data shows the weights of 30 students in kilograms.
Make a line plot to show these data, and then answer the questions.

28	26	29	24	26	30
30	25	28	27	28	26
24	30	25	30	28	28
25	26	28	25	28	30
26	24	29	24	30	26

- How many students weight 25 kilograms ? _____
- What is the frequency of 28 in these data ? _____
- What weight has the most frequency ? _____
- What weight has the least frequency ? _____
- How many students weight less than 26 kilograms ? _____
- How many students weight more than 27 kilograms ? _____

Solution

To make a line plot for these data follow the following steps :

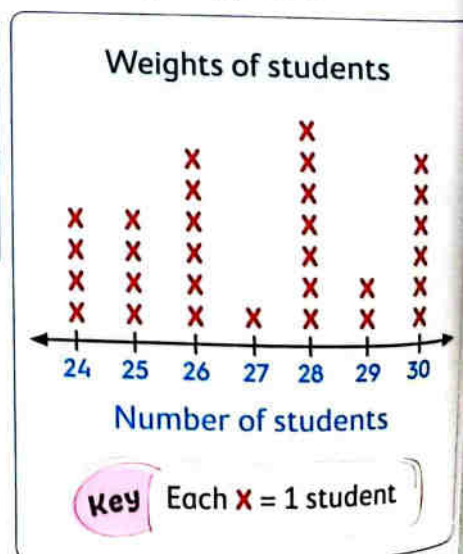
First : Determine the lowest and the greatest weight.

- The lowest weight = 24 kilogram.
- The greatest weight = 30 kilogram.

Second : Make a tally table shows how many times each weight appears.

Weights	24	25	26	27	28	29	30
Tallies							
Number of students (Frequency)	4	4	6	1	7	2	6

- 4 students
- 7 students
- 28 kilograms
- 27 kilograms
- $4 + 4 = 8$ students
- $7 + 2 + 6 = 15$ students



Notes for parents

- Remind your child that a number line can start at any number, and the numbers go on forever.

Check



The opposite data shows the number of books read by 20 children in a month, complete the tally table, and make a line plot.

How many books did you read in this month?

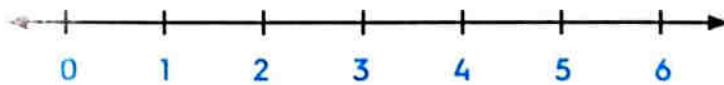
4	5	2	3	4
6	1	4	1	5
1	5	0	4	5
5	2	4	5	6

Number of books	0	1	2	3	4	5	6
Tallies							
Number of children							



Books Read This Month

key Each x = 1 child



Number of Books



Answer the following questions :

- How many children read 6 books ? _____
- How many children read 4 books ? _____
- How many children did not read any book ? _____
- How many children read more than 3 books ? _____
- How many children read 10 books ? _____

Exercise

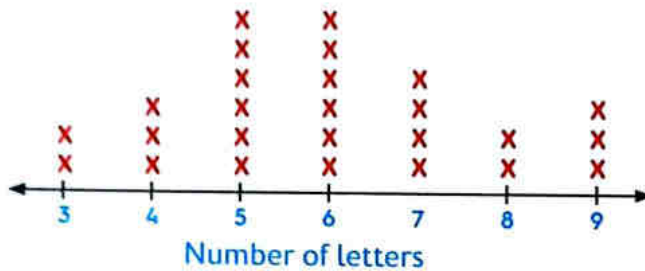
4

Line plots

On Lesson 4

1 Use the line plot to answer the questions.

Number of letters in our first name



key

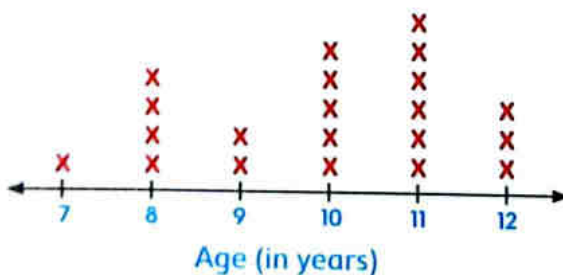
Each X on the line plot stands for one child



- How many children have 5 letters in their first name? _____ children.
- What is the smallest number of letters in a child's first name? _____ letters.
- What is the greatest number of letters in a child's first name? _____ letters.

2 The data in this line plot shows the ages of a group of students in a school choir. The number line shows the ages of the students. Use the line plot to answer the questions.

Members of the School Choir



key

Each X stands for one member

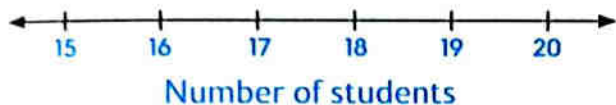


- How many students are 8 years old?
- How many students are 10 years old?
- How many students are 12 years old?
- What is the frequency of 11 years in this data?
- How many students are in the choir?
- How many students are younger than 10 years old?



3 Use the table to draw a line plot.

Marks of students in an exam



Marks of students in an exam

Marks	Number of students
15	2
16	1
17	3
18	5
19	4
20	2



key Each **x** = student.

4 Use the table to draw a line plot.

Ages of children in karate class



Ages of children in karate class

Age in years	Tallies
7	
8	
9	
10	/
11	
12	
13	



key

Use the line plot to answer the questions :

- How many children in the class are 11 years ?
- What age is the greatest number of children ?
- How many children are in karate class in all ?

children.
years old.
children.

- 5** The following numbers are the number of study hours per week for a number of students.

15	14	17	20	21	19
20	18	19	14	16	15
21	15	18	16	19	20
14	17	19	21	20	15
16	14	15	19	21	20

Hours								
Tally								
Frequency								



Answer the following questions :

key

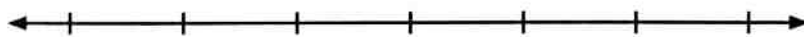
Each **X** stands for — student

- How many students study 17 hr. per week ? _____
- How many students study 21 hr. per week ? _____
- What is the greatest number of students study a certain number of hours ? _____
- What is the smallest number of students study a certain number of hours ? _____

- 6** The following numbers are the money saved by a number of children in a week in pounds.

50	60	40	30	90	80
40	50	60	70	80	90
50	70	80	90	60	50
70	50	50	60	80	50
70	60	50	40	50	80

Saved money								
Frequency								



key

Each **X** stands
for — child

1. Choose the correct answer.

- a. The number of children saving 90 pounds is — (3 or 4 or 5)
 b. The number of children saving the least amount of money is — (3 or 2 or 1)
 c. The greatest number of children saved — pounds. (50 or 60 or 90)

2. Put (✓) to the correct statement or (X) to the incorrect statement.

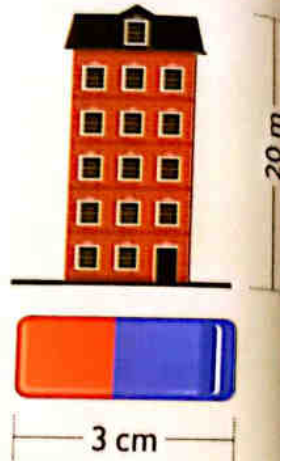
- a. The number of children who saved 70 pounds is 4. ()
 b. The smallest number of children saved 50 pounds. ()
 c. The number of all children in all is 90. ()

Place
a smiley
face

Learn 1 Length units (meter, centimeter and millimeter)

• Meter (m) :

Used to measure distances and longer lengths as : buildings and buses.



• Centimeter (cm) :

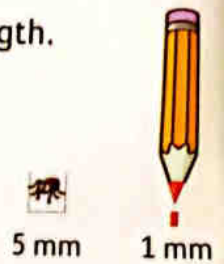
A centimeter (cm) is a small standard unit of measuring length, used to measure the length of small objects as : pencils, books and erasers.

• Millimeter (mm) :

- A millimeter (mm) is a very small standard unit of measuring length.

It is used to measure the length of a very small object as the length of an insect.

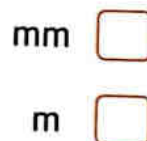
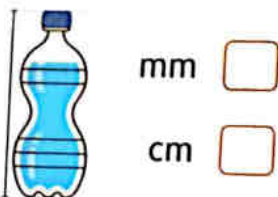
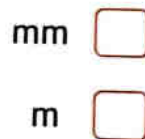
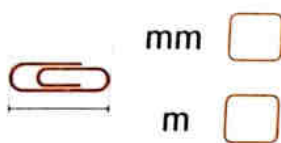
- A millimeter is about the width of the point of the end of your pencil.



Check



Tick (✓) the suitable unit to measure each object.



Notes for parents

- Ask your child to find something at home is about 5 cm in length, width or height, and another something is about 1 m
- Ask your child to find objects at home he/she can measure it in millimeter.

Learn 2 Converting length units

There are 100 centimeters in 1 meter

$$1 \text{ m} = 100 \text{ cm}$$

Example :

- $2 \text{ m} = 200 \text{ cm}$
- $5 \text{ m} = 500 \text{ cm}$
- $8 \text{ m} = 800 \text{ cm}$

When moving from meters to centimeters, the number gets two zeros on the end.

There are 10 millimeters in 1 centimeter

$$1 \text{ cm} = 10 \text{ mm}$$

Example :

- $2 \text{ cm} = 20 \text{ mm}$
- $4 \text{ cm} = 40 \text{ mm}$
- $19 \text{ cm} = 190 \text{ mm}$

When moving from centimeters to millimeters, the number gets a zero on the end.

Example 1

Complete.

a. $6 \text{ m} = \quad \text{cm}$

b. $9 \text{ m} = \quad \text{cm}$

c. $5 \text{ cm} = \quad \text{mm}$

d. $28 \text{ cm} = \quad \text{mm}$

e. $\quad \text{m} = 700 \text{ cm}$

f. $\quad \text{cm} = 120 \text{ mm}$

g. $200 \text{ cm} + 500 \text{ cm} = \quad + \quad = \quad \text{cm}$

h. $600 \text{ cm} + 30 \text{ cm} = \quad + \quad = \quad \text{cm}$

i. $300 \text{ mm} + 10 \text{ mm} = \quad + \quad = \quad \text{mm}$

j. $600 \text{ mm} + 200 \text{ mm} = \quad + \quad = \quad \text{mm}$



Solution

a. 600

b. 900

c. 50

d. 280

e. 7

f. 12

g. $200 \text{ cm} + 500 \text{ cm} = 700 \text{ cm}$

h. $600 \text{ cm} + 30 \text{ cm} = 630 \text{ cm}$

i. $300 \text{ mm} + 10 \text{ mm} = 310 \text{ mm}$

j. $600 \text{ mm} + 200 \text{ mm} = 800 \text{ mm}$

• Later in this year, your child will understand that when moving from centimeters to millimeters he/she can multiply by 10.

Example 2

Compare, write "> , = or <".

a. 9 cm 9 mm

c. 20 cm 200 mm

e. 3 m + 15 cm 315 cm

b. 50 mm 5 cm

d. 80 cm 90 mm

f. 7 cm + 5 mm 705 mm

Solution 

a. 9 cm 9 mm
9 cm \downarrow
90 mm

c. 20 cm 200 mm
20 cm \downarrow
200 mm

e. 3 m + 15 cm 315 cm
300 + 15 = 315 cm

b. 50 mm 5 cm
5 cm \downarrow
50 mm

d. 80 cm 90 mm
80 cm \downarrow
800 mm

f. 7 cm + 5 mm 705 mm
70 + 5 = 75 mm

Check 

Complete.

a. 3 m = _____ cm

c. 10 cm = _____ mm

e. _____ cm = 400 mm

g. 40 cm + 20 mm = _____ + _____ = mm

h. 207 cm = _____ m + _____ cm

b. 8 cm = _____ mm

d. _____ m = 400 cm

f. _____ cm = 250 mm



Notes for parents

- Let your child remember that to move from centimeter to millimeters he/she put 0 at the end of the number and to move from meter to centimeter he/she put two 0's at the end of the number.

Learn 3 How to use a ruler to measure the length of any object

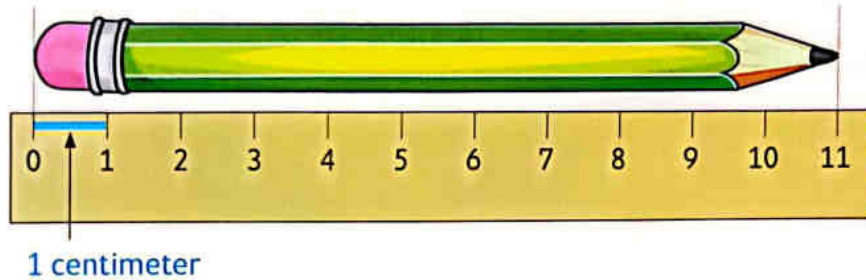
Step 1

Line up one end of the pencil with the zero mark on the ruler.

Step 2

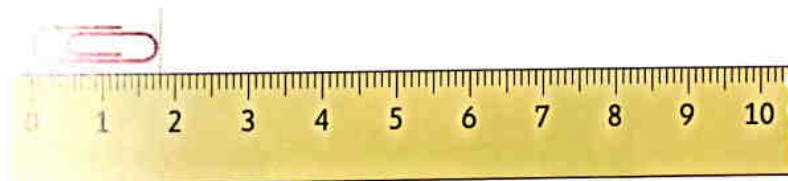
Find the centimeter mark on the ruler that is at the other end of the pencil.

What is the length of the pencil in centimeters ?

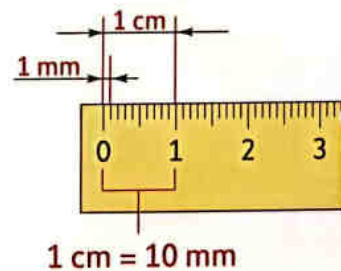


The length of the pencil is 11 cm

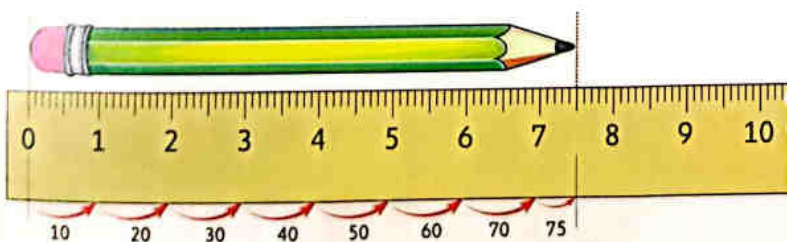
What is the length of the paper clip in millimeters ?



The paper clip is 18 millimeter.



What is the length of the pencil in millimeters ?



The pencil is 75 millimeter.



You can count
by 10

Ask your child to measure the lengths of his/her coloring pencils then arrange them from the shortest to the longest.

Check



Measure the length of each object. Circle the longest one and tick (✓) the shortest one.



_____ centimeter



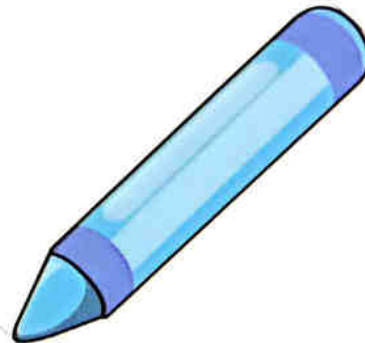
_____ centimeter



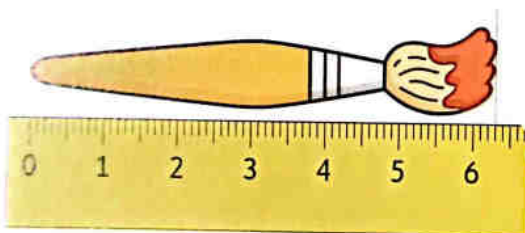
_____ centimeter



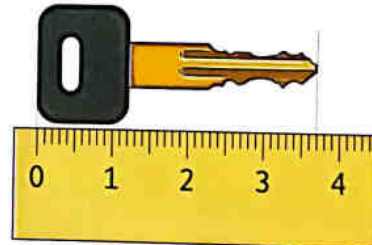
_____ centimeter



_____ centimeter



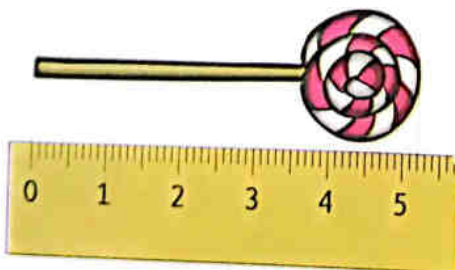
_____ millimeter



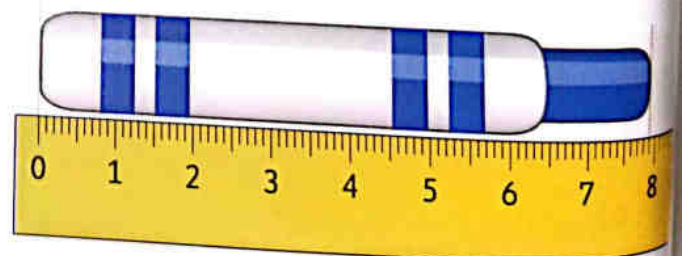
_____ millimeter



_____ millimeter



_____ millimeter



_____ millimeter

Notes for parents

- Give your child 4 strings and ask him/her to use a ruler to measure their lengths, then put them in order from the longest to the shortest.

1 Write the suitable unit (**meter** or **centimeter** or **millimeter**) to measure each object.

a.



b.



c.



d.



e.



f.



g.



h.



i.



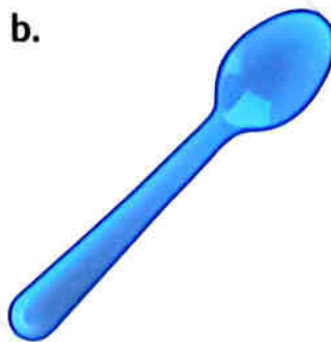
2 Use the ruler to measure the length of each of the following.

a.



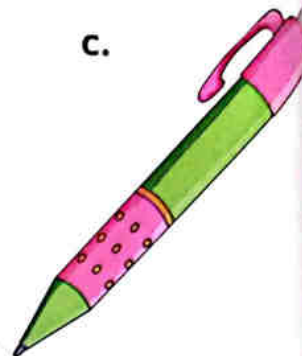
_____ centimeter

b.



_____ centimeter

c.



_____ centimeter

d.



_____ centimeter

e.



_____ centimeter

f.



_____ centimeter

g.



_____ centimeter

h.



_____ centimeter

i.



_____ centimeter

j.



_____ centimeter

k.



_____ centimeter

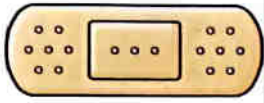
l.



_____ centimeter

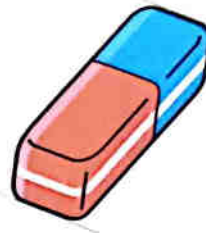
3 Use a ruler to measure the length of each of the following.

a.



_____ millimeter

b.



_____ millimeter

c.



_____ millimeter

d.



_____ millimeter

e.



_____ millimeter

f.



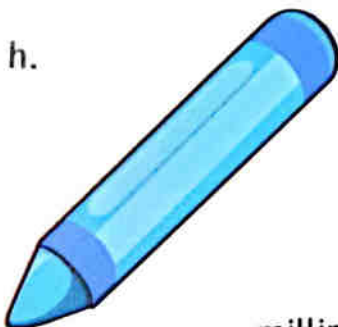
_____ millimeter

g.



_____ millimeter

h.



_____ millimeter

i.



_____ millimeter

- 4** Measure the length of each stripe and write its length, then arrange from the longest to the shortest.



centimeter



centimeter



centimeter



centimeter

The order is :

, , ,

- 5** Estimate and match.

a about 2 cm

b about 10 m

c about 2 m

d about 10 cm

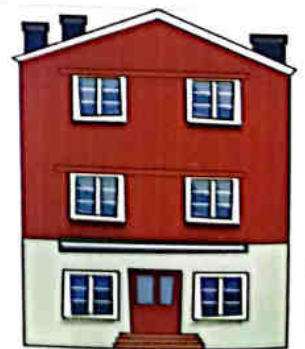
1



2



3



4



6 put (✓) to the correct statement or (X) to the incorrect one.

- a. The length of a bus is about 5 cm ()
- b. The length of your book is about 30 cm ()
- c. The length of an insect is about 3 m ()
- d. The length of your pen is about 15 cm ()
- e. Millimeter is a suitable unit to measure the length of large distances. ()

7 Complete.

a. 7 cm = _____ mm

b. 3 cm = _____ mm

c. 4 m = _____ cm

d. 8 m = _____ cm

e. 18 cm = _____ mm

f. 50 cm = _____ mm

g. _____ m = 500 cm

h. 300 cm = _____ m

i. _____ cm = 40 mm

j. 200 mm = _____ cm

k. 10 cm = _____ mm

l. 10 mm = _____ cm

m. 2 cm + 5 cm = _____ mm

n. 4 cm + 2 cm = _____ mm

o. 5 m + 3 m = _____ cm

p. 4 m + 2 m = _____ cm

q. 70 mm + 10 mm = _____ cm

r. 20 mm + 70 mm = _____ cm

s. 350 cm = _____ m + _____ cm

t. 75 mm = _____ cm + _____ mm

8 Complete using "> , = or <".

a. 5 m 5 cm

c. 40 mm 9 cm

e. 6 cm 6 mm

g. 9 mm 9 m

i. 1 cm 100 mm

k. 600 mm 6 cm

m. 3 cm and 3 mm 303 mm

b. 20 mm 2 cm

d. 7 cm 20 mm

f. 20 cm 200 mm

h. 1 m 100 cm

j. 20 mm 200 cm

l. 30 mm + 20 mm 50 cm

n. 56 mm 50 cm + 6 mm



Challenge

9 Ring the longest length.

90 mm

88 cm

100 mm

90 cm



Remember

meter, centimeter and millimeter are three units of measuring lengths. The length of any object does not change if it is measured in m, cm or mm.



5 m



130 cm



6 mm

$$1 \text{ m} = 100 \text{ cm}$$

$$1 \text{ cm} = 10 \text{ mm}$$



the estimating length.



80 cm **80 m**



6 mm **6 m**



13 cm **8 mm**



10 cm **10 mm**



50 mm **50 cm**



30 cm **30 m**

Notes for parents

- Ask your child to find an object at home is about 1 meter in length or width and another object is about 30 cm.
- Ask your child to measure the length of some nails, then arrange them from the longest to the shortest.

Exercise 6

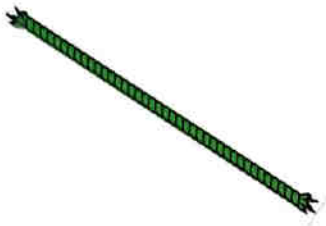
Reviewing measuring lengths

On Lessons 9 & 10

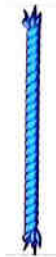
- 1** Measure the length of each string, then arrange from the shortest to the longest.



_____ mm



_____ mm



_____ mm



_____ mm

The order is : _____ , _____ , _____ , _____

- 2** Measure the length of each crayon, then complete.



Crayon	Green	Yellow	Blue	Orange	Red
Length					

- a. The color of the longest crayon is _____
- b. The color of the shortest crayon is _____

3 Choose the correct answer.

- a. 3 cm = _____ mm (3 or 30 or 300)
- b. 24 cm = _____ mm (240 or 40 or 200)
- c. 70 mm = _____ cm (70 or 700 or 7)
- d. 500 mm = _____ cm (50 or 5 or 55)
- e. 5 m = _____ cm (5 or 50 or 500)
- f. 200 cm = _____ m (2 or 20 or 200)
- g. _____ cm = 60 mm (600 or 6 or 60)
- h. _____ mm = 7 cm (7 or 70 or 700)
- i. 10 cm = _____ mm (100 or 10 or 1)
- j. 3 cm + 2 cm = _____ mm (5 or 50 or 500)
- k. 6 m + 3 m = _____ cm (9 or 90 or 900)
- l. 40 mm + 30 mm = _____ cm (7 or 70 or 700)

Write (✓) for the correct statement and (X) for the incorrect one.

- a. 1 m = 100 cm ()
- b. 90 mm = 9 cm ()
- c. 30 cm = 300 mm ()
- d. 500 cm = 50 m ()
- e. 1 cm and 2 mm = 12 mm ()
- f. 2 m + 6 m = 800 mm ()
- g. 520 mm = 52 cm ()

5 Measure the length of the items. Complete the table, then create a line plot for these data :



centimeter



centimeter



centimeter



centimeter



centimeter



centimeter



centimeter



centimeter



centimeter



centimeter



centimeter



centimeter



key Each **x** represents one item.

Length in cm	Number of items
1	
2	
3	
4	
5	

• What is the frequency of the longest length ? _____

• What is the frequency of the shortest length ? _____

6 Measure the lengths of insects. Complete the table, then create a line plot for these data.



_____ millimeter



_____ millimeter



_____ millimeter



_____ millimeter



_____ millimeter



_____ millimeter



_____ millimeter



_____ millimeter



_____ meter



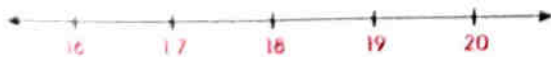
_____ millimeter



_____ millimeter



_____ millimeter



key Each **X** represents one insect.



Length in mm	Number of insects
16	
17	
18	
19	
20	

- 7** Measure the length of each line in cm and in mm.
Complete the table, then create the two line plots.

_____ cm, _____ mm

_____ cm, _____ mm

_____ cm, _____ mm

_____ cm, _____ mm

_____ cm, _____ mm

_____ cm, _____ mm

_____ cm, _____ mm

_____ cm, _____ mm

Line	Red	Black	Green	Violet	Yellow	Gray	Blue	Orange
Length in cm								
Length in mm								

Lines lengths in cm

Lines lengths in mm



Lengths in cm

key Each X stands for one line



Lengths in mm

key Each X stands for one line

Challenge

8 Complete.

a. $4 \text{ cm} + \quad \text{mm} = 70 \text{ mm}.$

c. $90 \text{ mm} - \quad \text{mm} = 2 \text{ cm}.$

e. $5 \text{ m} - \quad \text{cm} = 300 \text{ cm}.$

b. $10 \text{ mm} + \quad \text{mm} = 3 \text{ cm}.$

d. $8 \text{ cm} - \quad \text{cm} = 20 \text{ mm}.$

f. $\quad \text{m} + 40 \text{ cm} = 540 \text{ cm}.$

9 Complete.

- Mention an item at home is about 15 mm in length.
Then measure its length.

Item	Length
_____	_____

● Your estimation (choose) :

accepted ☐

not accepted ☐


Place
a smiley
face





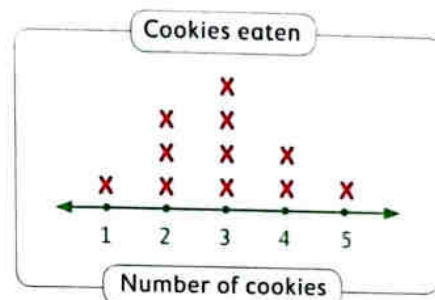
Assessment Chapter 1


1 Complete.

- a. 5 cm = mm
- b. 250 cm = m and cm
- c. The length of the object  = cm
- d. 49, 48, 47, 46, , (in the same pattern)

2 Choose the correct answer.

- a. By using the opposite line plot.
How many children ate 2 cookies?
(1 or 2 or 3 or 4)



- b. 18, 23, 28, 33, (in the same pattern) (38 or 43 or 37 or 48)
- c. 20 mm = cm (20 or 2 or 200 or 2000)
- d. The length of the object  = mm (1 or 5 or 2 or 10)

3 Put (✓) to the correct statement or (X) to the incorrect statement.

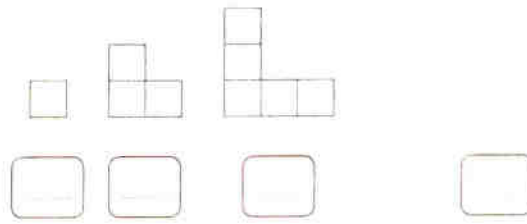
- a. 5 m and 3 m = 8 cm. ()
- b. 8 m = 800 cm. ()
- c. The length of the object  = 4 cm. ()
- d. 30, 32, 34, 36, 39, 40 are all in a correct same pattern. ()

4 Arrange the following lengths in a descending order.

70 mm , 70 cm , 77 mm , 77 cm

The order is : , , ,

- 5 Draw what might come next in the pattern. Write the number of items in each step.



- 6 Complete using ($<$, $=$ or $>$).

a. 7 m 7 cm

b. 4 m 40 cm

c. 20 mm 20 cm

d. 70 mm 9 cm

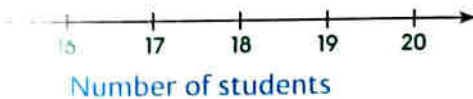
- 7 Use the table to draw a line plot.

Marks of students in an exam

Key
Each
x = student.

Marks of students in an exam

Marks	Number of students
15	2
16	1
17	3
18	5
19	4
20	2



Count the tallies. Write the total. Color the graph to show the data.

Saved coins		
Day	Tally	Number
Sunday		
Monday		
Tuesday		
Wednesday		



CHAPTER

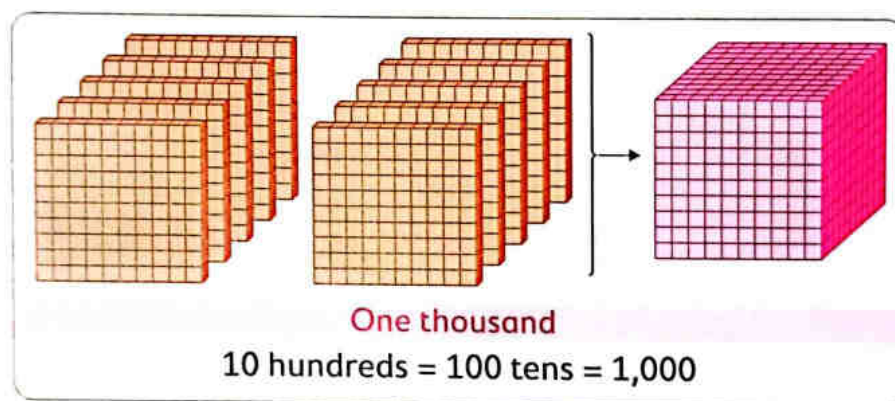
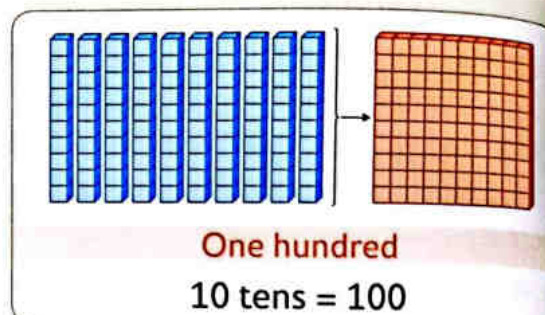
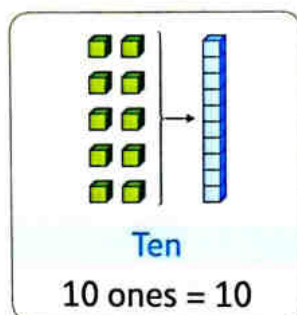
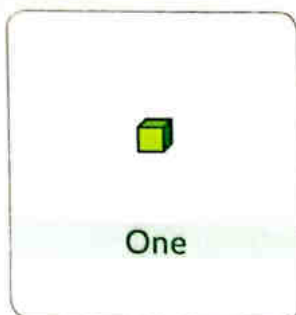
2



Lessons 11&12

Thousands

Learn 1 Exploring thousands



Math tip

A comma (,) is used to separate the thousands and the hundreds.



Generally :

- 2,000 (two thousands) = 20 hundreds = 200 tens.
- 3,000 (three thousands) = 30 hundreds = 300 tens.

Remarks

- 9 is the greatest 1-digit number $\rightarrow 9 + 1 = 10$
10 is the smallest 2-digit number
- 99 is the greatest 2-digit number $\rightarrow 99 + 1 = 100$
100 is the smallest 3-digit number
- 999 is the greatest 3-digit number $\rightarrow 999 + 1 = 1,000$
1,000 is the smallest 4-digit number



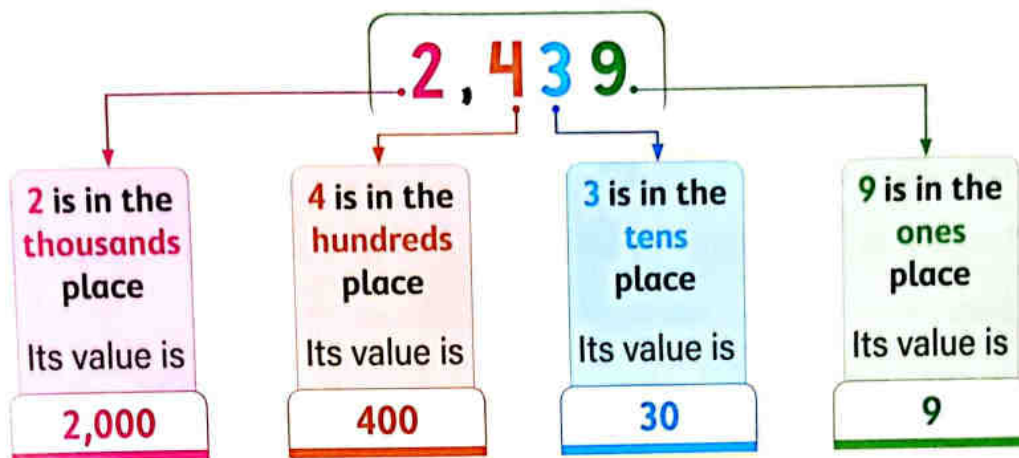
Notes for parents

- Let your child know another way to find one thousand is adding one to 999 ones ($999 + 1 = 1,000$).

Learn 2 The place value

- The **value** of each digit in any number depends on its **place** in this number.

Example : Notice the value of each digit in the number 2,439


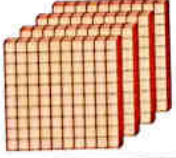
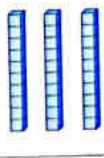



How do you write and read 4-digit numbers ?

Place value chart :

Thousands	Hundreds	Tens	Ones
2	4	3	9
2,000	400	30	9

Place value mat :

Thousands	Hundreds	Tens	Ones
			
2	4	3	9

Math tip

The expanded form is adding the value of each digit in the number



- Standard form : 2, 4 3 9
- Expanded form : 2,000 + 400 + 30 + 9
- Word form : Two thousand, four hundred thirty-nine

• Help your child to use the expanded form as a way to read the number for example :
(2,000 + 600 + 30 + 4) is read as two thousands, six hundred thirty-four.

Example 1

Write the place value and the value of the colored digit.

	Place value	Value		Place value	Value
a. 5,839			b. 7,282		
c. 2,106			d. 5,018		

Solution ✓

	Place value	Value		Place value	Value
a.	Thousands	5,000	b.	Tens	80
c.	Ones	6	d.	Hundreds	0

Example 2

Write each of the following in standard form.

- | | |
|--|------------------------|
| a. $4,000 + 500 + 60 + 7 =$ | b. $7,000 + 400 + 8 =$ |
| c. $50 + 9 + 6,000 =$ | d. $8,000 + 60 =$ |
| e. Three thousand, five hundred and thirteen = | |
| f. 70 thousands, 5 hundreds and eight = | |

Solution ✓

- | | | |
|----------|----------|----------|
| a. 4,567 | b. 7,408 | c. 6,059 |
| d. 8,060 | e. 3,513 | f. 9,508 |

Example 3

Complete.

- | | |
|-----------------------------|---------------------------------|
| a. $5,000 =$ thousands | b. $7,000 =$ hundreds |
| c. $8,000 =$ tens | d. 40 hundreds = thousands |
| e. 900 tens = hundreds | f. = 500 tens |

Notes for parents

- Ask your child to choose any number from this page and write it in another way.

Solution 

- | | | |
|------|-------|---------|
| a. 5 | b. 70 | c. 800 |
| d. 4 | e. 90 | f. 5000 |

Check 

1. Choose the correct answer.

- a. The value of the digit 4 in the number 5,430 is _____
A. 4 B. 40 C. 400 D. 4,000
- b. The place value of the digit 3 in the number 3,506 is _____
A. ones B. tens C. hundreds D. thousands
- c. The value of the digit 0 in the number 9,502 is _____
A. 0 B. 10 C. 100 D. tens
- d. $7,000 + 500 + 2 =$ _____
A. 752 B. 7,250 C. 7,502 D. 7,520
- e. 8 thousands, 6 tens and 3 ones = _____
A. 863 B. 8,063 C. 8,603 D. 8,630
- f. Three thousand, six hundreds seven = _____
A. 367 B. 3,067 C. 3,607 D. 3,670

2. Complete.

- | | | |
|----------------------------|-----------------------|----------------------------------|
| a. 3,000 = _____ thousands | b. 2,000 = _____ tens | c. 4 thousands = _____ tens |
| d. _____ = 6 thousands | e. 1,000 = _____ ones | f. 600 tens = _____ hundreds |
| g. _____ = 700 tens | h. _____ = 8,000 ones | i. 20 hundreds = _____ thousands |

• Let your child remember that : the value of each digit in any number depends on its place in this number.

Learn 3 Comparing and ordering 4-digit numbers



How do you compare 4-digit number ?

Compare 4,593 and 176

- 4,593 has more digits than 176

So, 4,593 is greater than 176

$$4,593 > 176$$

When comparing numbers, the number which has more number of digits is the greater.

Compare 3,462 and 3,489

- 3,462 and 3,489 have the same number of digits, so :

First : Compare the thousands digits



Second : Compare the hundreds digits



Third : Compare the tens digits

3, 4 6 2
3, 4 8 9

The digits are the same

3, 4 6 2
3, 4 8 9

The digits are the same

3, 4 6 2
3, 4 8 9

$$6 < 8$$

So, 3,462 is smaller than 3,489

$$3,462 < 3,489$$

How to create the greatest and the least 4-digit number ?



The digits are 4, 5, 9, 1

To create the greatest 4-digit number from given digits, arrange the digits from greatest to least.

The order is : 9 5 4 1

So, the greatest number is : 9,541

To create the least 4-digit number from given digits, arrange the digits from least to greatest.

The order is : 1 4 5 9

So, the least number is : 1,459

Hint :

Do not put the 0 digit in the highest place value. It will be 3-digit number.

For example : • The greatest 4-digit number formed from 6, 7, 0, 1 is 7,610

• The least 4-digit number formed from 6, 7, 0, 1 is 1,067

Notes for parents

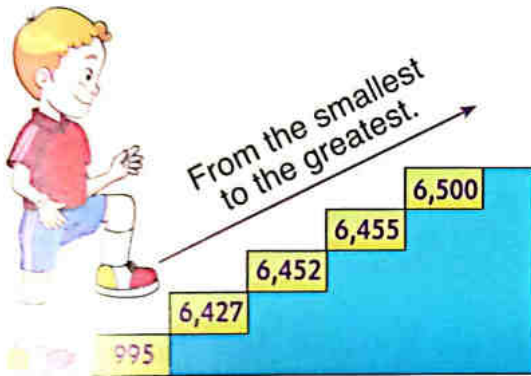
- Ask your child to tell you a number greater than 4,321 and another number less than 8,765.
- Ask your child to explore the greatest 4-digit number. (he/she should answer : 9,999).

Ordering numbers

ASCENDING

Ascending order is ordering numbers from the smallest to the greatest.

• For example :

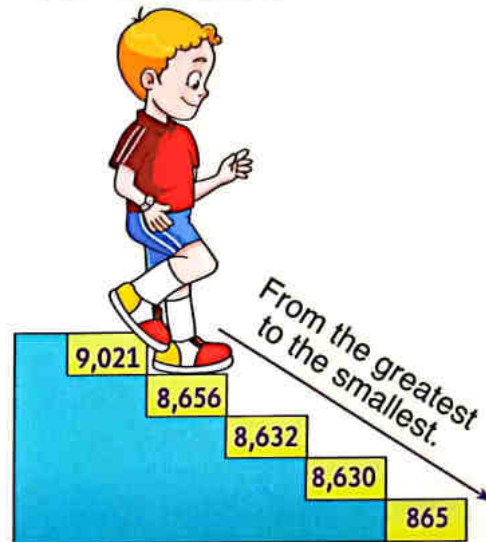


995, 6,427, 6,452, 6,455 and 6,500 are arranged in an ascending order.

DESCENDING

Descending order is ordering numbers from the greatest to the smallest.

• For example :



9,021, 8,656, 8,632, 8,630 and 865 are arranged in a descending order.



Compare, write "> , < or =".

a. 3,251 3,251
c. 2,800 999

b. 7,365 7,356
d. 30 hundreds 3,000

2. Write the greatest and the smallest number formed from the digits : 7 , 2 , 5 and 1

• The greatest :

• The smallest :

3. Arrange the following numbers in an ascending order.

7,351 3,751 1,753 5,173 → _____ , _____ , _____ , _____


4. Arrange the following numbers in a descending order.

1,111 999 1,000 1,023 → _____ , _____ , _____ , _____

• Help your child to know that : 4-digit number is greater than 3-digit number.

1 Complete the table.

	Number	Thousands	Hundreds	Tens	Ones
a.	5,839				
b.	7,256				
c.	2,103				
d.	4,360				
e.	5,018				
f.	918				

 Circle the value of the red digit.

a. 3,791
 3,000 300 30 3

c. 5,129
 9,000 900 90 9

e. 1,034
 0 10 100 1,000

g. 7,360
 6,000 600 60 6

b. 4,182
 4,000 400 40 4

d. 8,073
 7,000 700 70 7

f. 7,107
 1 10 100 1,000

h. 3,333
 3,000 300 30 3

3 write the place value and the value of the colored digit.

	place value	value
a. 3,791	<input type="text"/>	<input type="text"/>
c. 4,182	<input type="text"/>	<input type="text"/>
e. 5,629	<input type="text"/>	<input type="text"/>
g. 7,107	<input type="text"/>	<input type="text"/>
i. 5,431	<input type="text"/>	<input type="text"/>
k. 3,030	<input type="text"/>	<input type="text"/>

	place value	value
b. 6,129	<input type="text"/>	<input type="text"/>
d. 8,063	<input type="text"/>	<input type="text"/>
f. 1,034	<input type="text"/>	<input type="text"/>
h. 2,560	<input type="text"/>	<input type="text"/>
j. 9,287	<input type="text"/>	<input type="text"/>
l. 2,222	<input type="text"/>	<input type="text"/>

4 write the following numbers in expanded form.

a. 3,284 = _____ + _____ + _____ + _____

b. 5,123 = _____ + _____ + _____ + _____

c. 9,856 = _____ + _____ + _____ + _____

d. 8,032 = _____ + _____ + _____

e. 7,504 = _____ + _____ + _____

f. 6,800 = _____ + _____

g. 4,001 = _____ + _____



5 Write in standard form.

a. $2,000 + 600 + 30 + 4 =$

c. $4,000 + 500 + 90 + 3 =$

e. $20 + 1 + 6,000 =$

g. $600 + 7,000 + 50 =$

i. $1,000 + 900 =$

b. $1 + 70 + 800 + 6,000 =$

d. $3,000 + 300 + 9 =$

f. $10 + 100 + 1,000 =$

h. $5 + 9,000 =$

j. $5,000 + 40 =$

6 Write in expanded form and standard form.

a. 8 thousands, 4 hundreds, 9 tens and 1 one

$\boxed{} + \boxed{} + \boxed{} = \boxed{}$

b. 2 thousands, 1 hundred, 7 tens and 5 ones

$\boxed{} + \boxed{} + \boxed{} = \boxed{}$

c. 7 ones, 5 hundreds, 3 thousands and 2 tens

$\boxed{} + \boxed{} + \boxed{} = \boxed{}$

d. 9 thousands, 7 hundreds and 2 ones

$\boxed{} + \boxed{} = \boxed{}$

e. 1 thousand, and 48 ones

$\boxed{} + \boxed{} = \boxed{}$

f. 5 hundreds, 4 thousands and 3 ones

$\boxed{} + \boxed{} = \boxed{}$

g. 7 hundreds, 5 thousands and 16 ones

$\boxed{} + \boxed{} + \boxed{} = \boxed{}$

h. 4 tens, 3 thousands and 6 ones

$\boxed{} + \boxed{} = \boxed{}$

7 Write the missing numbers.

a. $2,753 = \underline{\hspace{2cm}} + 700 + 50 + 3$

b. $\underline{\hspace{2cm}} = 3,000 + 3$

c. $4,925 = 4,000 + 900 + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

d. $6,040 = 6,000 + \underline{\hspace{2cm}}$

e. $9,462 = 9,000 + \underline{\hspace{2cm}} + 60 + 2$

f. $7,777 = 7 + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

g. $3,781 = 1 + \underline{\hspace{2cm}} + 700 + \underline{\hspace{2cm}}$

h. $4,506 = \underline{\hspace{2cm}} + 500 + \underline{\hspace{2cm}}$



Write the following in standard form.

a. Five thousand, three hundred seventy-eight = $\underline{\hspace{2cm}}$

b. Two thousand, five hundred thirty-one = $\underline{\hspace{2cm}}$

c. Nine thousand, four hundred six = $\underline{\hspace{2cm}}$

d. One thousand, fifty-four = $\underline{\hspace{2cm}}$

e. Three thousand, two = $\underline{\hspace{2cm}}$

f. Four thousand, forty = $\underline{\hspace{2cm}}$

g. Two thousand, seventeen = $\underline{\hspace{2cm}}$

h. Eight thousand, five hundred = $\underline{\hspace{2cm}}$

9 Write the following in the word form.

a. 3,751 → _____

b. 4,004 → _____

c. 7,200 → _____

d. 6,510 → _____

e. $5,000 + 300 + 10 + 7$ → _____

f. $8,000 + 80$ → _____

g. 5 thousands, 3 hundreds and 26 ones → _____

h. 2 thousands and 2 tens → _____

10 Complete.

a. 6,000 = _____ thousands.

c. 7,000 = _____ tens.

e. 500 tens = _____ thousands.

g. 30 hundreds = _____ tens.

i. _____ = 4,000 ones.

k. 4 thousands = _____ hundreds.

b. 2,000 = _____ hundreds.

d. 80 hundreds = _____ thousands.

f. 900 tens = _____ hundreds.

h. _____ tens = 8 hundreds.

j. _____ = 800 tens.

l. 8 thousands = _____ tens.

11 Compare, write " $>$ ", " $<$ " or " $=$ ".

a. 3,291 ☐ 3,591

b. 5,148 ☐ 4,185

c. 2,459 ☐ 4,378

d. 6,450 ☐ 6,540

e. 711 ☐ 7,110

f. 2,691 ☐ 948

g. 5,709 ☐ 5,704

h. 4,515 ☐ 4,531

i. 8,651 ☐ $1 + 50 + 600 + 8,000$

j. $3,000 + 300 + 30$ ☐ 3,333

k. 9,205 ☐ Nine thousand, two hundred fifty.

l. 5,168 ☐ 5 thousands, 1 hundred, 6 tens and 7 ones.

m. 9 thousands, 2 hundreds and 5 ones ☐ $9,000 + 200 + 50$

n. 6 thousands ☐ 60 hundreds

o. 90 tens ☐ 9 hundreds

Write the greatest and the least 4-digit number from the given digits.

	Digits	Greatest 4-digit number	Least 4-digit number
a.	4, 3, 9, 8	_____	_____
b.	5, 2, 3, 4	_____	_____
c.	5, 1, 6, 8	_____	_____
d.	4, 4, 7, 5	_____	_____
e.	3, 0, 2, 7	_____	_____
f.	0, 3, 4, 9	_____	_____

13 Write the numbers in an ascending order.

a. 6,987 6,978 7,896 987

The order is : _____ , _____ , _____ , _____

b. 4,782 3,521 9,835 5,336

The order is : _____ , _____ , _____ , _____

c. 1,281 993 4,621 6,170 2,990

The order is : _____ , _____ , _____ , _____ , _____

d. 4,279 7,942 784 4,278 7,249

The order is : _____ , _____ , _____ , _____ , _____

14 Write the numbers in order a descending order.

a. 5,300 1,050 1,500 3,805

The order is : _____ , _____ , _____ , _____

b. 7,321 941 6,541 9,541

The order is : _____ , _____ , _____ , _____

c. 456 1,938 2,605 5,719 3,010

The order is : _____ , _____ , _____ , _____ , _____

d. 5,441 6,204 2,917 708 3,009

The order is : _____ , _____ , _____ , _____ , _____

5 Complete.

- a. The place value of the digit 6 in the number 5,632 is _____
- b. The value of the digit 9 in the number 9,304 is _____
- c. The greatest 4-digit number is _____
- d. The smallest 4-digit number is _____
- e. The greatest 4-different digit number is _____
- f. The smallest 4-different digit number is _____
- g. The smallest 4-same digit number is _____



16 Put (✓) to the correct statement or (X) to the incorrect one.

- a. 30 Hundreds = 3 thousands ()
- b. The place value of the digit 7 in the number 7,469 is thousands ()
- c. The value of the digit 5 in the number 5,367 is 500 ()
- d. $9,000 + 40 + 500 + 6 = 9,456$ ()
- e. $7,465 > 7,456$ ()
- f. $2,409 = 2 \text{ thousands}, 4 \text{ hundreds and } 9 \text{ tens}$ ()
- g. The smallest 4-digits number formed from 9 , 6 , 0 and 3 is 369 ()



Challenge

- 17** By using the digits 5 , 3 , 2 and 4
Form 3-different numbers each of them is greater than 5,000

- 18** What does 23 hundred and 19 ones equal ?

Place
a smiley
face

Learn 5-digit and 6-digit numbers

How do you write and read 5-digit numbers ?

• Place value chart :

53,167					
Ten thousands	Thousands	Hundreds	Tens	Ones	← Place value
5	3	1	6	7	
50,000	3,000	100	60	7	← Value

• Standard form : 53,167

• Expanded form : $50,000 + 3,000 + 100 + 60 + 7$

• Word form : Fifty-three thousand, one hundred sixty-seven

How do you write and read 6-digit numbers ?

Place value chart :

253,167						
Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones	← Place value
2	5	3	1	6	7	
200,000	50,000	3,000	100	60	7	← Value

• Standard form : 253,167

• Expanded form : $200,000 + 50,000 + 3,000 + 100 + 60 + 7$

• Word form : Two hundred fifty-three thousand, one hundred sixty-seven

Notes for parents

- let your child discover what is the result of adding.
1 to 9,999 (10,000) and adding 1 to 99,999 (100,000).

Example 1

Write the place value and the value of the colored digit.

	Number	Place value	Value
a.	34,761		
b.	259,613		
c.	84,179		
d.	256,341		

Solution 

- a. Ten thousands / 30,000
- b. Hundred thousands / 200,000
- c. Thousands / 4,000
- d. Hundreds / 300

Example 2

Write each of the following in standard form.

- a. $300,000 + 50,000 + 4,000 + 900 + 80 + 1 =$ _____
- b. $70,000 + 7,000 + 7 =$ _____
- c. $300 + 1,000 + 40,000 + 60 + 700,000 =$ _____
- d. Two hundred sixty-five thousands , one hundred seventeen = _____
- e. Forty-one thousands , five hundred six = _____

Solution 

a. 354,981

b. 77,007

c. 741,360

d. 265,117

e. 41,506

Check 

Complete.

- a. The place value of the digit 4 in the number 341,698 is _____
- b. The value of the digit 7 in the number 716,409 is _____
- c. The value of the digit 2 in the number 24,690 is _____
- d. The place value of the digit 5 in the number 576,321 is _____
- e. $900 + 30,000 + 600,000 + 4 =$ _____
- f. 7 ten thousands, 4 thousands, 6 hundreds and 2 ones = _____

- Ask your child to discover the greatest and the least 5-digit numbers (his/her answer should be : 99,999 & 10,000)
- Also the greatest and the least 6-digit numbers (his/her answer should be : 999,999 & 100,000)

Exercise 8

Ten thousands and hundred thousands

On Lessons 13 & 14

1 Circle the correct digit in the number according to its place.

- | | | | |
|----------------------|---------|----------------------|---------|
| a. Ten thousands | 65,810 | b. Hundred thousands | 308,000 |
| c. Hundred thousands | 921,348 | d. Hundreds | 200,700 |
| e. Thousands | 102,421 | f. Tens | 31,000 |
| g. Ones | 85,609 | h. Ten thousands | 407,100 |

2 Circle the value of the red digit.

- | | | | |
|--|---------|--------|-------|
| a. 23,250 | 300,000 | 30,000 | 3,000 |
| c. 20,057 | 500 | 50 | 5 |
| e. 511,980 | 500,000 | 50,000 | 5,000 |
| g. 102,421 | 100,000 | 10,000 | 0 |
| b. 85,142 | 800,000 | 80,000 | 8,000 |
| d. 33,221 | 20,000 | 2,000 | 200 |
| f. 498,107 | 900,000 | 90,000 | 9,000 |
| h. 371,056 | 100,000 | 10,000 | 1,000 |

3 Write the place value and the value of the colored digit.

- | | place value | value | | place value | value |
|------------|----------------------|----------------------|------------|----------------------|----------------------|
| a. 69,284 | <input type="text"/> | <input type="text"/> | b. 481,206 | <input type="text"/> | <input type="text"/> |
| c. 730,460 | <input type="text"/> | <input type="text"/> | d. 156,392 | <input type="text"/> | <input type="text"/> |
| e. 24,378 | <input type="text"/> | <input type="text"/> | f. 40,520 | <input type="text"/> | <input type="text"/> |
| g. 320,045 | <input type="text"/> | <input type="text"/> | h. 501,483 | <input type="text"/> | <input type="text"/> |
| i. 59,730 | <input type="text"/> | <input type="text"/> | j. 78,029 | <input type="text"/> | <input type="text"/> |

4 Complete.

- a. The place value of the digit 5 in the number 513,627 is _____
 - b. The value of the digit 7 in the number 764,210 is _____
 - c. The place value of the digit 0 in the number 904,362 is _____
 - d. The value of the digit 0 in the number 904,362 is _____
 - e. The digit which lies on the ten thousand place in the number 356,217 is _____
 - f. The digit which lies on the hundred thousand place in the number 598,631 is _____
 - g. If the value of a digit is 500,000, then its place value is _____
 - h. If the value of a digit is 30,000, then its place value is _____
-

Write the following in standard form.

- a. Thirty-one thousand, five hundred seventy-four = _____
- b. Two hundred seventy-eight thousand, six hundred twenty-one = _____
- c. Three hundred eight thousand, ten = _____
- d. 5 Hundred thousands , 4 thousands and 3 tens = _____
- e. 9 Ten thousands , 7 thousands , 2 hundreds and 5 ones = _____
- f. 3 Hundred thousands , 3 ten thousands and 3 hundreds = _____
- g. $30,000 + 9,000 + 400 + 10 + 5 =$ _____
- h. $60,000 + 8,000 + 90 + 2 =$ _____
- i. $8 + 20 + 900 + 300,000 =$ _____
- j. $500,000 + 500 + 5 =$ _____



6 Write in expanded form.

a. $95,683 =$ _____ $+$ _____ $+$ _____ $+$ _____ $+$ _____

b. $543,876 =$ _____ $+$ _____ $+$ _____ $+$ _____ $+$ _____ $+$ _____

c. $27,461 =$ _____ $+$ _____ $+$ _____ $+$ _____ $+$ _____

d. $709,436 =$ _____ $+$ _____ $+$ _____ $+$ _____ $+$ _____

e. $48,909 =$ _____

f. $230,045 =$ _____

g. $70,116 =$ _____

h. $36,001 =$ _____

i. $400,040 =$ _____



Write the missing numbers.

a. $95,683 =$ _____ $+$ $5,600 + 80 + 3$

b. $531,497 =$ _____ $+$ $30,000 +$ _____ $+$ $400 + 97$

c. $78,465 = 65 + 400 +$ _____ $+$ $70,000$

d. $43,092 = 2 + 90 +$ _____ $+$ $3,000$

e. $670,341 =$ _____ $+$ $70,000 + 340 +$ _____

f. $102,637 =$ _____ $+$ _____ $+$ $600 + 30 + 7$

g. _____ $= 200,000 + 10,000 + 564$

h. _____ $= 30,000 + 5,000 + 29$

i. _____ $= 25,000 + 798$

j. _____ $= 900,000 + 5,000 + 17$

k. _____ $= 16,000 + 400 +$

8 Write the following in the word form.

a. 235,791 →

b. 904,006 →

c. 71,071 →

d. 60,606 →

e. $700,000 + 40,000 + 6,000 + 90$ →

f. $50,000 + 4,000 + 300 + 20 + 9$ →

g. 7 Hundred thousands, 9 thousands and 5 tens →

h. 8 Ten thousands, 6 hundreds and 36 ones →

Match.

a. The value of the digit 5
in the number 351,267

• Hundred thousands

b. The place value of the digit 5
in the number 576,423

• 50,000

c. The place value of the digit 5
in the number 157,630

• 500,000

d. The value of the digit 5
in the number 521,679

• Ten thousands

e. $5,000 + 500,000 + 5 + 50$

• 550,550

f. $500,000 + 50,000 + 500 + 50$

• 505,055



10 Compare, write "> , < or =".

- a. 48,047 ☐ 49,123
c. 322,647 ☐ 322,467
e. 526,540 ☐ 526,550
g. 15,000 ☐ 150 hundreds

- b. 175,362 ☐ 175,290
d. 321,054 ☐ 83,266
f. 50,320 ☐ 50,410
h. 7,500 hundreds ☐ 750 thousands

- i. 99,999 ☐ one hundred thousand
j. 301,013 ☐ Three hundred one thousand , thirteen
k. 275,600 ☐ $200,000 + 70,000 + 5,000 + 6$
l. 111,111 ☐ 99,999
n. $99,999 + 1$ ☐ 100,000
p. The greatest number formed from 5-digits ☐ The smallest number formed from 6-digits

- q. $72,000 + 345$ ☐ $70,000 + 2,300 + 45$

Do not put the 0 digit in the highest place value.

11 Rearrange the digits to get the greatest and the least number.

- a. 7 3 6 2 8

least

- b. 6 2 3 8 1 4

greatest least

- c. 7 2 1 0 9

greatest least

- d. 2 0 3 5 6 1

greatest least

- e. 0 7 8 0 4

greatest least

- f. 5 9 7 0 1 3

greatest least

- g. 2 4 7 5 1 9

greatest least

- h. 1 9 6 7 8 3

greatest least

12 write the numbers in order from least to greatest.

a. 11,493 132,567 9,372 98,505

The order is : _____ , _____ , _____

b. 125,762 27,652 152,567 27,256

The order is : _____ , _____ , _____

c. 833,322 833,400 8,339 83,987 83,986

The order is : _____ , _____ , _____ , _____

d. 965,852 932,599 965,478 93,259 96,547

The order is : _____ , _____ , _____ , _____

e. 24,571 724,072 4,720 24,270 724,172

The order is : _____ , _____ , _____ , _____

f. 999,999 111,111 100,000 102,345 987,654

The order is : _____ , _____ , _____ , _____

13 write the numbers in order from greatest to least.

a. 103,002 3,201 23,001 21,300

The order is : _____ , _____ , _____

b. 11,112 101,559 59,002 21,052

The order is : _____ , _____ , _____

c. 81,236 618,765 38,472 637,961 773,550

The order is : _____ , _____ , _____ , _____

- d. 914,231 12,605 9,380 12,606 914,230
 The order is : , , , ,
- e. 500,000 99,999 100,000 500,007 3,428
 The order is : , , , ,

14 Put (✓) to the correct statement or (X) to the incorrect one.

- a. The greatest number formed from the digits 2, 7, 5, 9, 0 and 6 is 907,652 ()
 b. The smallest number formed from the digits 2, 4, 6, 5 and 1 is 12,456 ()
 c. The greatest 6-digit number is 999,999 ()
 d. The smallest 6-different digit number is 123,456 ()
 e. The greatest 5-different digit number is 987,654 ()
 f. The smallest 5-digit number is 11,111 ()
 g. The place value of the circled digit in the number 75,621 is hundred thousands ()
 h. The value of the circled digit in the number 752,634 is 700,000 ()

15 Circle the numbers which is greater than 200,000

99,999 716,012 50,214 321,000 200,100

16 Circle the numbers which is smaller than 33,000

111,111 200,000 20,000 13,699 9,216



Challenge

17 Complete : If the place value of a digit is ten thousands, then its value has _____ zeroes.

18 Write a number which is greater than 45,387 and having the digits :

1 2 0 9 3

Place
a smile
face

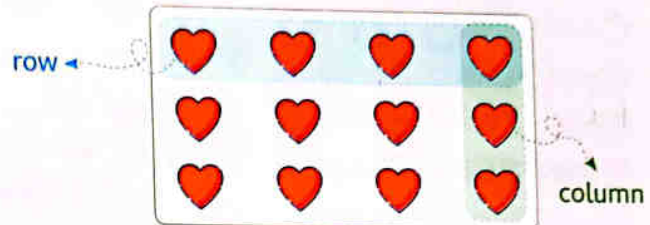
Learn

- Arrays have horizontal rows and vertical columns.

In this array,

- Number of rows : **3**

- Number of columns : **4**



You can write :

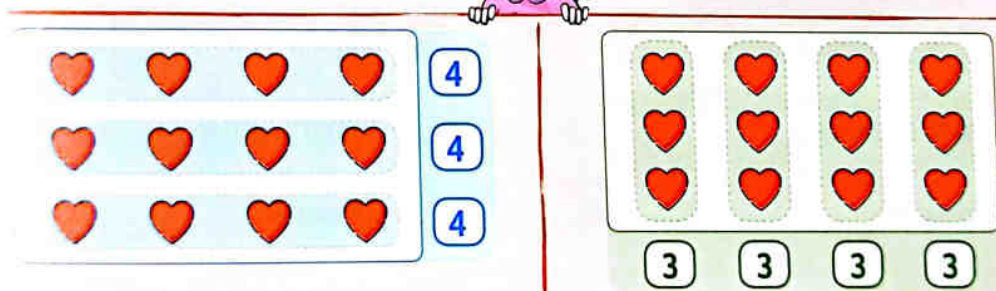
3 rows of 4

or

4 columns of 3

How to find the total number of objects using repeated addition?

To find the total number of objects in an array use skip counting or repeated addition.



First Skip counting to find the total number of array

- This array has 3 rows of 4 hearts.
- Skip counting by 4s three times : 4, 8, **12** hearts.
- This array has 4 columns of 3 hearts.
- Skip counting by 3s four times : 3, 6, 9, **12** hearts.

Second Repeated addition to find the total number of array

- Number of rows = 3
- Number of hearts in each row = 4
- Total number of hearts = $4 + 4 + 4 = \mathbf{12}$
- Number of columns = 4
- Number of hearts in each column = 3
- Total number of hearts = $3 + 3 + 3 + 3 = \mathbf{12}$

Notes for parents

- Tell your child that repeated addition and skip counting are not the only strategies to find the total.

Check



Write the repeated addition and skip counting steps to find the total of each the following.

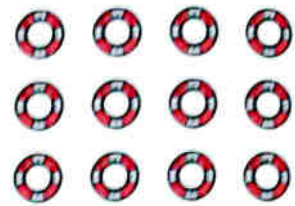
a.



Repeated addition :

Skip counting :

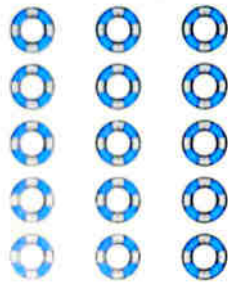
b.



Repeated addition :

Skip counting :

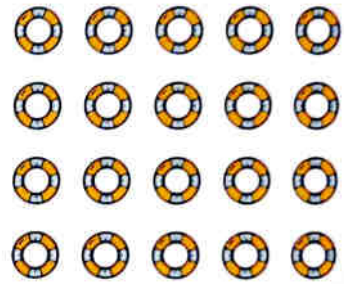
c.



Repeated addition :

Skip counting :

d.



Repeated addition :

Skip counting :

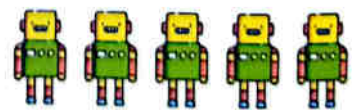
e.



Repeated addition :

Skip counting :

f.



Repeated addition :

Skip counting :

Notes for parents

- Remind your child that rows are horizontal and go across but columns are vertical and go up and down.

Exercise

9

Arrays

On Lessons 15 & 16

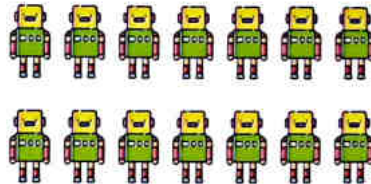
1 Complete the following.

a.



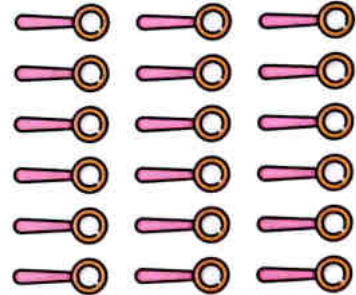
rows of

b.



rows of

c.



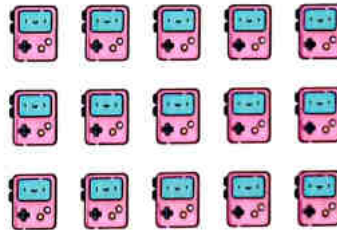
rows of

d.



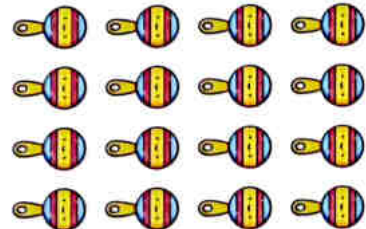
column of

e.



columns of

f.



columns of

2 Create an array.

a.

2 rows of 3

b.

4 rows of 2

c.

1 row of 6

d.

1 column of 5

e.

3 columns of 4

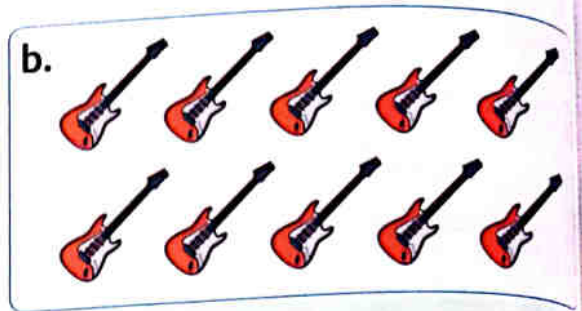
f.

7 columns of 2

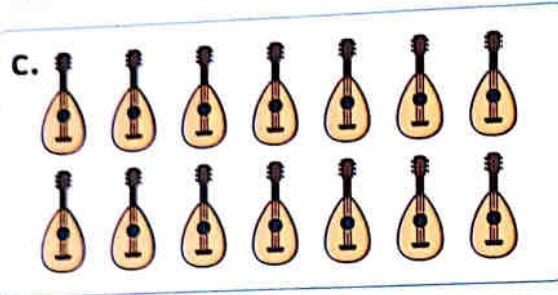
3 Find the total items of each array using skip counting strategy.



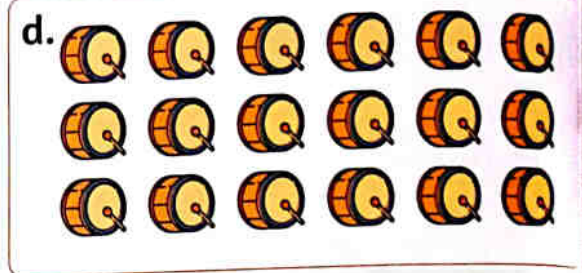
The total = _____



The total = _____



The total = _____

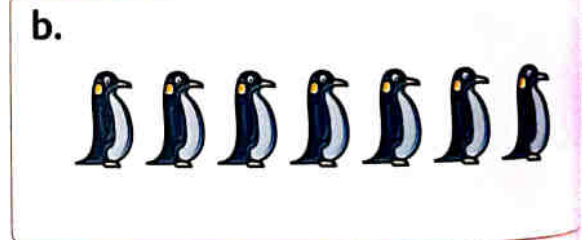


The total = _____

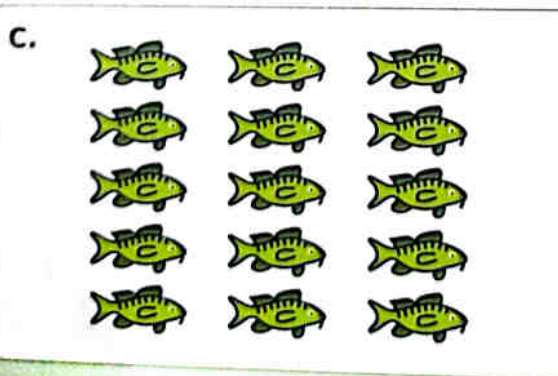
Look at each array. Complete.



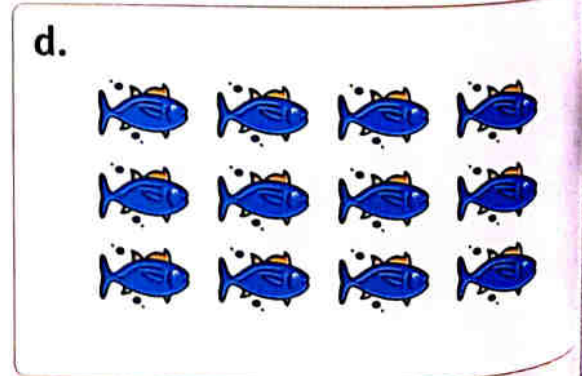
_____ equal rows _____ in
each row _____ in all.



_____ equal columns _____ in
each column _____ in all.

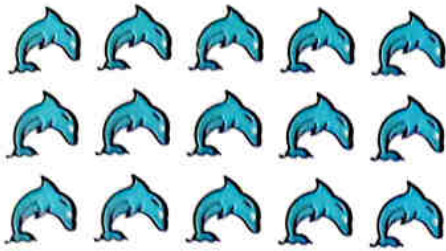


_____ equal rows _____ in
each row _____ in all.



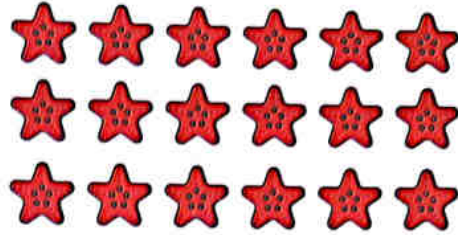
_____ equal columns _____ in
each column _____ in all.

e.



equal rows _____ in
each row _____ in all.

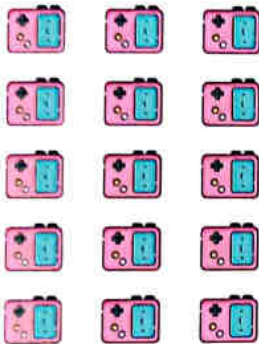
f.



equal columns _____ in
each column _____ in all.

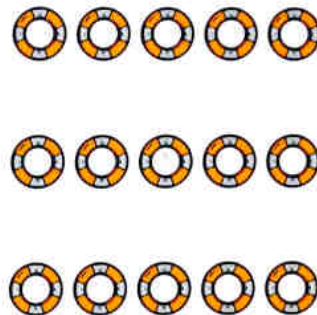
5 Complete the following.

a.



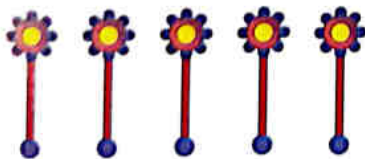
Number of rows = _____
Number of items in each row = _____
Total number of items = _____

b.



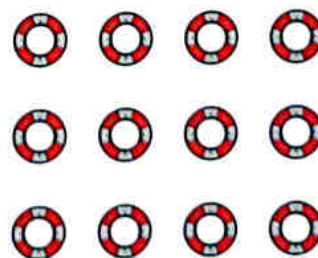
• Number of rows = _____
• Number of items in each row = _____
• Total number of items = _____

c.



• Number of rows = _____
• Number of items in each row = _____
• Total number of items = _____

d.



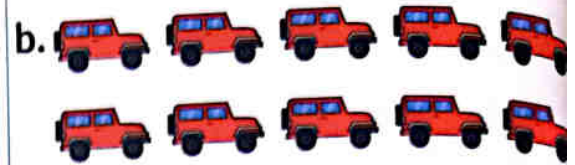
• Number of rows = _____
• Number of items in each row = _____
• Total number of items = _____

6 Write the repeated addition and skip counting steps to find the total.



Repeated addition : _____

Skip counting : _____



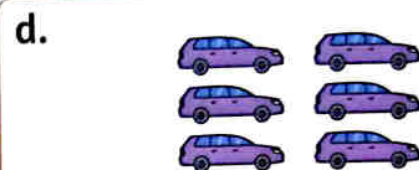
Repeated addition : _____

Skip counting : _____



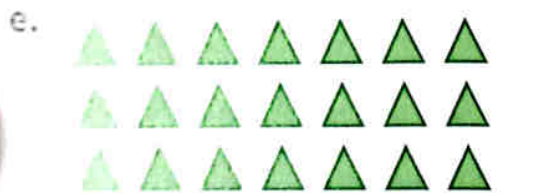
Repeated addition : _____

Skip counting : _____



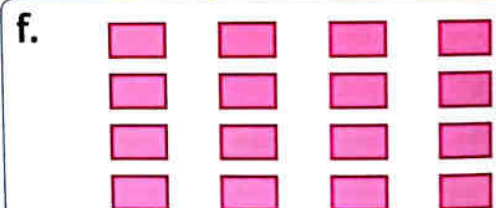
Repeated addition : _____

Skip counting : _____



Repeated addition : _____

Skip counting : _____



Repeated addition : _____

Skip counting : _____

Challenge

7 Complete.

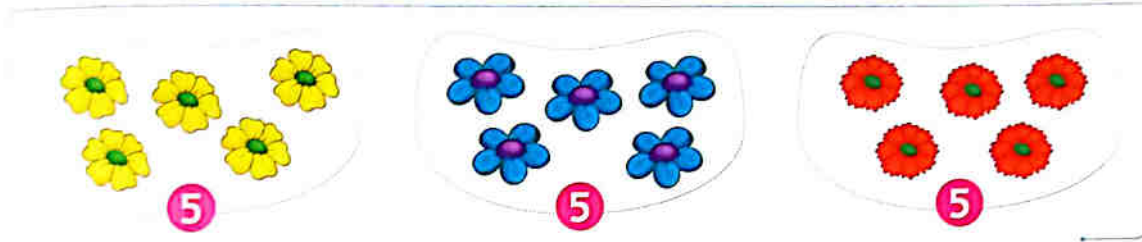
In an array, if the number of rows is 4 rows and the number of the items in each row is 5 items, then the total number of items equal _____

* You can draw a model to help you to solve the problem.

Learn 1 Multiplication as repeated addition

- There are 3 equal groups of 5 flowers

Equal groups
are groups that have the
same number of items.



- You can use **repeated addition** to find the total.

$$5 + 5 + 5 = 15 \text{ Addition sentence}$$

- When you put together equal groups, you can also use **multiplication**

What you write : $3 \times 5 = 15$ Multiplication sentence

Factor Multiplication symbol Factor Product

- Factor one of the numbers multiplied.
- Product the number obtained when multiplying.

What you say : 3 times 5 equals 15

Example 1

Write an addition sentence and a multiplication sentence to find the total.

- a. • Repeated addition : $_ + _ + _ = _$
• Multiplication : $_ \times _ = _$
- b. • Repeated addition : $_ + _ + _ + _ = _$
• Multiplication : $_ \times _ = _$

Notes for parents

- Use small objects. Ask your child to make 2 groups of 6. Then have your child write an addition sentence and a multiplication sentence.

Solution

a. Repeated addition : $2 + 2 + 2 = 6$
Multiplication : $3 \times 2 = 6$

b. Repeated addition : $3 + 3 + 3 + 3 = 12$
Multiplication : $4 \times 3 = 12$

Example 2

Complete.

a. $2 + 2 + 2 + 2 + 2 = \quad \times 2 = \quad$

b. $5 + 5 + 5 + 5 = 4 \times \quad = \quad$

c. $3 \times 7 = \quad + \quad + \quad = \quad$

d. $\quad \times 4 = 4 + 4 + 4 + 4 + 4 = \quad$

Solution

a. $2 + 2 + 2 + 2 + 2 = 5 \times 2 = 10$

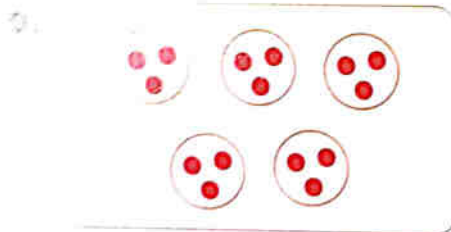
b. $5 + 5 + 5 + 5 = 4 \times 5 = 20$

c. $3 \times 7 = 7 + 7 + 7 = 21$

d. $5 \times 4 = 4 + 4 + 4 + 4 + 4 = 20$

Check

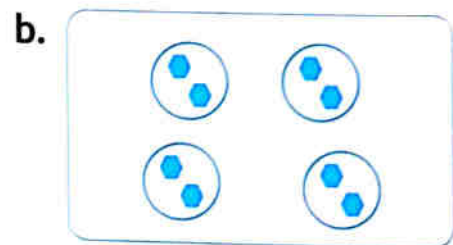
Write an addition sentence and a multiplication sentence to find the total.



• Repeated addition :

$\quad + \quad + \quad + \quad + \quad = \quad$

Multiplication : $\quad \times \quad = \quad$



• Repeated addition :

$\quad + \quad + \quad + \quad + \quad = \quad$

Multiplication : $\quad \times \quad = \quad$

Notes for parents

- Ask your child to compare the addition sentence and the multiplication sentence and compare the sum and the product. They should be the same.

Learn 2

How does an array show multiplication ?

This array shows 3 rows of 4 cupcakes

- To find the total number of cupcakes, you can add or multiply.

Repeated addition : $4 + 4 + 4 = 12$

Multiplication : $3 \times 4 = 12$ → product "total"

→ Number in each row

→ Number of rows

Say : 3 times 4 equals 12



3 rows

4 in each row

Another way

The same array shows 4 columns of 3 cupcakes

- To find the total number of cupcakes, you can add or multiply.

Repeated addition : $3 + 3 + 3 + 3 = 12$

Multiplication : $4 \times 3 = 12$ → product "total"

→ Number in each column

→ Number of columns

Say : 4 times 3 equals 12



4 columns

3 in each column

Check



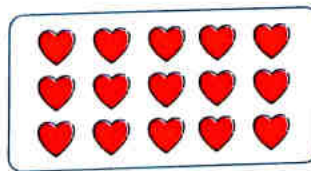
Complete.

a.



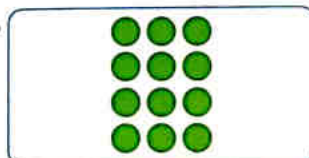
rows of
 \times =

b.



columns of
 \times =

c.



rows of
 \times =

* Let your child use small objects to create an array of 5 rows of 3 and write the multiplication sentence.

Exercise 10

Multiplication

On Lessons 17 & 18

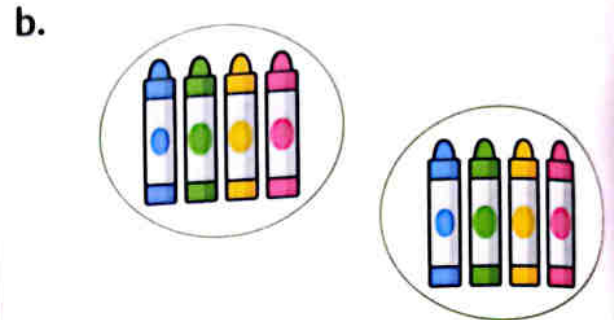
1 Write an addition sentence and a multiplication sentence to find the total



Repeated addition :

$$+ + + + =$$

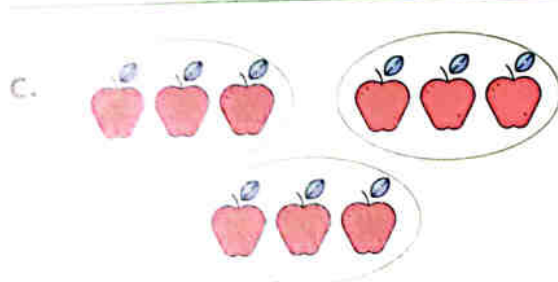
Multiplication : $\times =$



Repeated addition :

$$+ + + + =$$

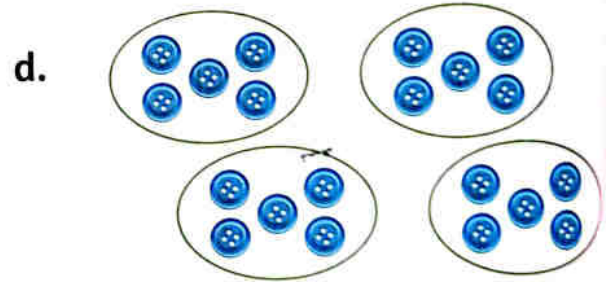
Multiplication : $\times =$



Repeated addition :

$$+ + + =$$

Multiplication : $\times =$



Repeated addition :

$$+ + + + + =$$

Multiplication : $\times =$



Repeated addition :

$$+ + + + + =$$

Multiplication : $\times =$



Repeated addition :

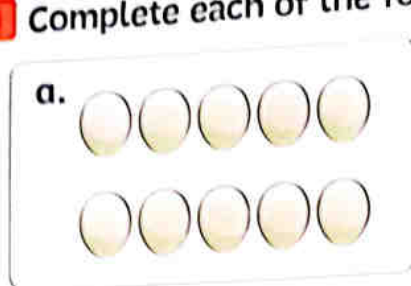
$$+ + + + + =$$

Multiplication : $\times =$

2 Complete.

Equal groups	Model	Addition sentence	Multiplication sentence
a. 	_____ groups of _____	_____	_____
b. 	_____ groups of _____	_____	_____
c. 	_____ groups of _____	_____	_____
d. 	_____ groups of _____	_____	_____
e. 	_____ groups of _____	_____	_____
f. 	_____ groups of _____	_____	_____
g. 	_____ groups of _____	_____	_____

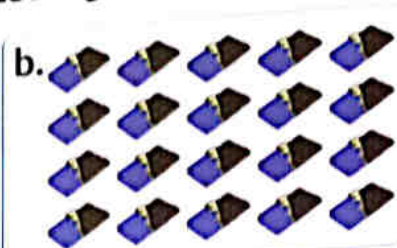
3 Complete each of the following.



rows of

\times

$=$



rows of

\times

$=$



rows of

\times

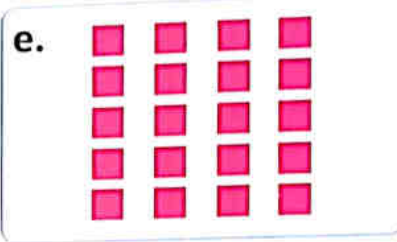
$=$



rows of

\times

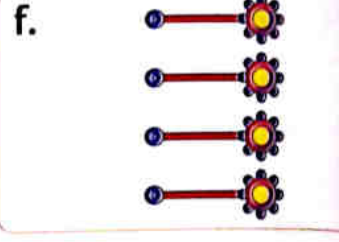
$=$



rows of

\times

$=$



rows of

\times

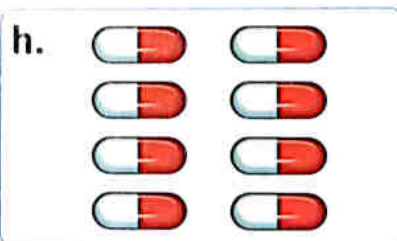
$=$



columns of

\times

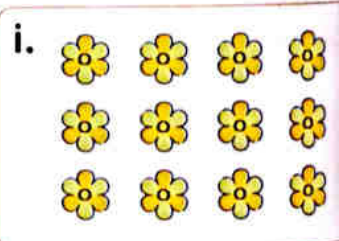
$=$



columns of

\times

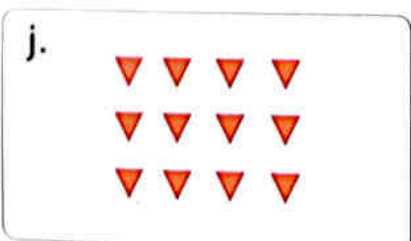
$=$



columns of

\times

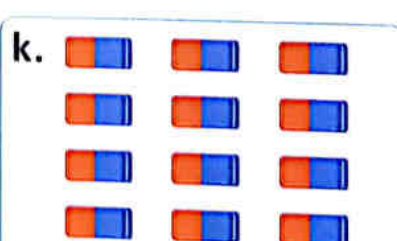
$=$



columns of

\times

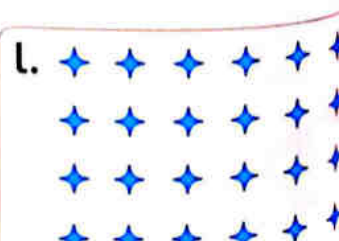
$=$



columns of

\times

$=$



columns of

\times

$=$

4 Match each array to its sentence.

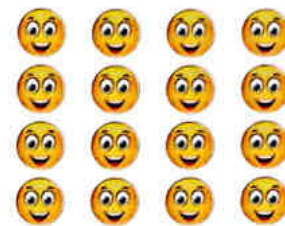


$$3 + 3 = 6$$

$$3 \times 5 = 15$$

$$4 + 4 + 4 + 4 = 16$$

$$1 \times 6 = 6$$



5 Complete.

a. $3 + 3 + 3 + 3 = \quad \times 3 = \quad$

c. $4 + 4 + 4 + 4 + 4 = \quad \times 4 = \quad$

e. $6 + 6 + 6 = \quad \times \quad = \quad$

g. $1 + 1 + 1 + 1 + 1 + 1 = \quad \times \quad = \quad$

i. $4 \times 7 = \quad + \quad + \quad + \quad = \quad$

k. $8 \times 2 = \quad + \quad + \quad = \quad$

m. $\quad \times 3 = 3 + 3 + 3 + 3 + 3 + 3 = \quad$

o. $8 \times \quad = 8 + 8 + 8 + 8 = \quad$

b. $7 + 7 + 7 = \quad \times 7 = \quad$

d. $5 + 5 = \quad \times 5 = \quad$

f. $9 + 9 + 9 + 9 = \quad \times \quad = \quad$

h. $8 + 8 + 8 + 8 = \quad \times \quad = \quad$

j. $2 \times 9 = \quad + \quad = \quad$

l. $6 \times 4 = \quad + \quad + \quad + \quad = \quad$

n. $5 \times 5 = \quad + \quad + \quad + \quad + \quad = \quad$

p. $\quad + \quad + \quad + \quad + \quad = 4 \times 5 = \quad$

6 Choose the correct answer.

a. $3 + 3 + 3 + 3 + 3 = \quad \times 3$

A. 3

B. 4

C. 5

D. 6

b. 4 groups of 2 =

A. $4 + 2$

B. 4×4

C. $2 \times 2 \times 2 \times 2$

D. 4×2

c. 2 groups of 9 = $9 +$

A. 2

B. 9

C. 18

D. $9 + 9$

d. $2 \times 3 = 3 +$

A. 0

B. 1

C. 2

D. 3

e. $7 + 7 + 7 = 3 \times$

A. 3

B. 5

C. 7

D. 9

7 Draw to model groups. Then write an addition sentence and a multiplication sentence for each.

a. 2 groups of 4

b. 3 groups of 2

c. 3 groups of 3

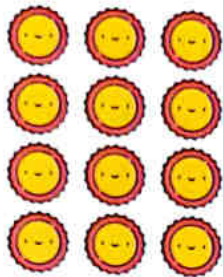
d. 4 groups of 5

e. 2 groups of 3

f. 5 groups of 4

8 Build the array as the example. Write the multiplication sentence.

Example



4 rows of 3

$$4 \times 3 = 12$$

a.

5 rows of 2

$$\underline{\quad} \times \underline{\quad} = \boxed{\quad}$$

b.

3 rows of 6

$$\underline{\quad} \times \underline{\quad} = \boxed{\quad}$$

c.

5 columns of 5

$$\underline{\quad} \times \underline{\quad} = \boxed{\quad}$$

d.

2 columns of 8

$$\underline{\quad} \times \underline{\quad} = \boxed{\quad}$$

e.

4 rows of 7

$$\underline{\quad} \times \underline{\quad} = \boxed{\quad}$$

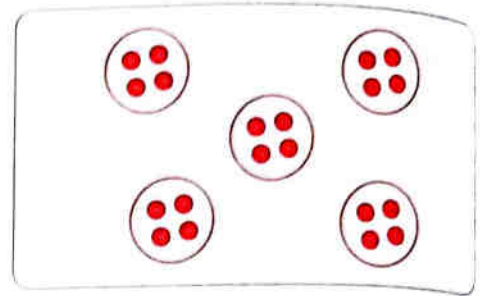
- 9** Look at the two images below. Then write the addition sentence and multiplication sentence to find the total.

a.



- Addition sentence : _____
- Multiplication sentence : _____

b.



- Addition sentence : _____
- Multiplication sentence : _____

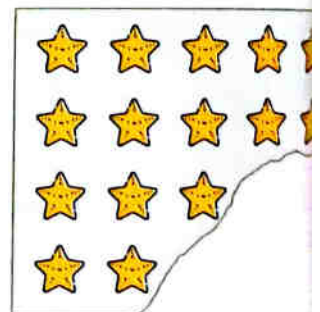
Look at the array and the equal groups, then answer :

- How are these similar ? _____
- How are these different ? _____
- Do they have the same total ? _____
- How is that possible ? _____

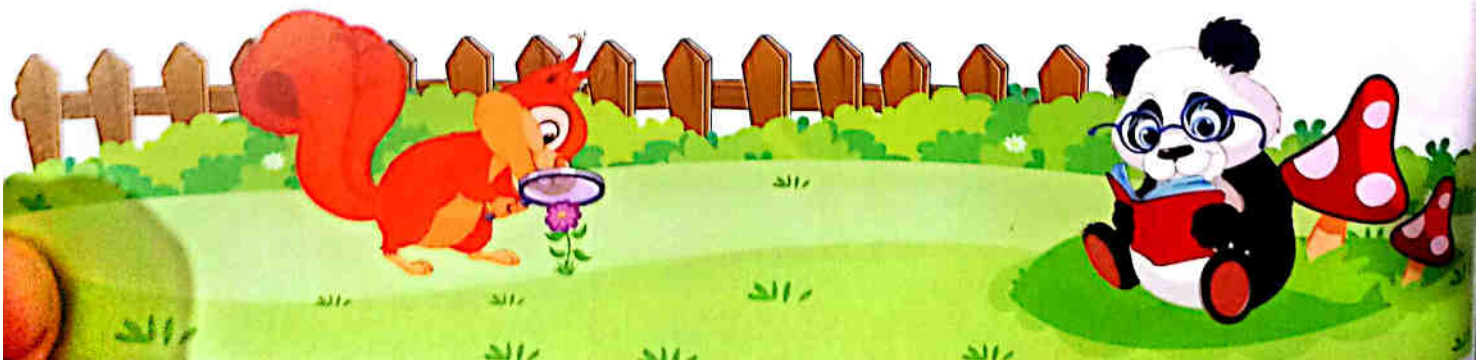


Challenge

- 10** Look at the star array below. Some of the stars have been ripped off.
- How many stars were in the original array ? Explain your thinking using pictures, numbers, or words.



Place
a smile
face



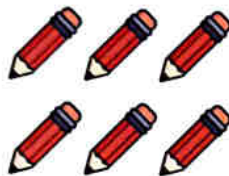
Learn 1 Commutative property of multiplication "Arrays"

Commutative property of multiplication means that :

You can multiply in any order and the product is the same.

This array is 2 rows of 3

2 rows
3 in each row



Add : $3 + 3 = 6$

Multiply : $2 \times 3 = 6$



This array is 3 rows of 2

3 rows
2 in each row



Add : $2 + 2 + 2 = 6$

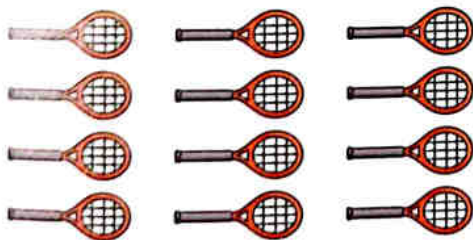
Multiply : $3 \times 2 = 6$

The factors can be multiplied in any order and their product is the same.

So, $2 \times 3 = 3 \times 2 = 6$



Write how many. Write the multiplication sentences.



rows of

\times =



rows of

\times =

What did you notice ? \times = \times

Notes for parents

- Ask your child to use objects to show you 3 rows of 6 and 6 rows of 3 and then find how many objects in all of each.

Learn 2 Commutative property of multiplication "Equal groups"

You can multiply in any order and the product is the same.

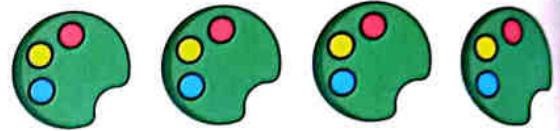
There are 3 groups of 4



$$\text{Add : } 4 + 4 + 4 = 12$$

$$\text{Multiply : } 3 \times 4 = 12$$

There are 4 groups of 3



$$\text{Add : } 3 + 3 + 3 + 3 = 12$$

$$\text{Multiply : } 4 \times 3 = 12$$

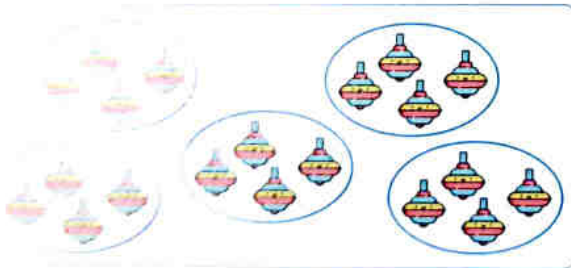
The factors can be multiplied in any order and their product is the same.

$$\text{So, } 3 \times 4 = 4 \times 3 = 12$$

Check

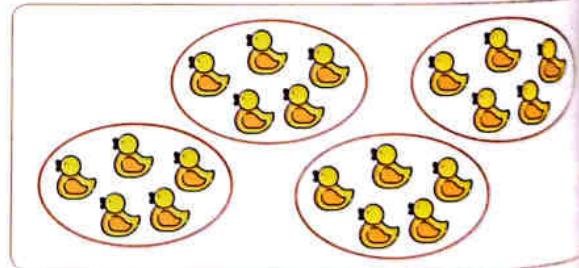


How many. Write the multiplication sentences.



groups of

\times =



groups of

\times =

What did you notice ? $\square \times \square = \square \times \square$

Notes for parents

- Ask your child to use objects to show you 2 groups of 5 and 5 groups of 2 and then find how many objects in all of each.

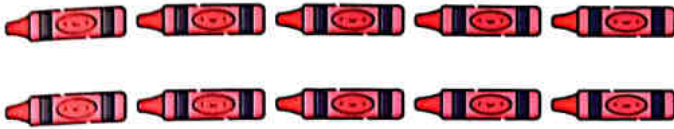
Exercise 11

Commutative property of Multiplication

On Lessons 19 & 20

1 Complete the following.

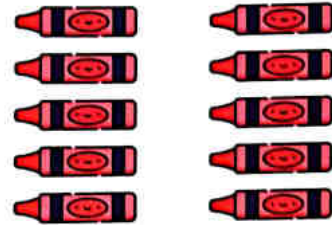
a.



rows of columns

$$\square \times \square = \square$$

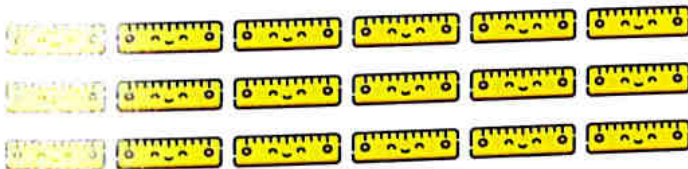
$$\square \times \square = \square \times \square$$



rows of columns

$$\square \times \square = \square$$

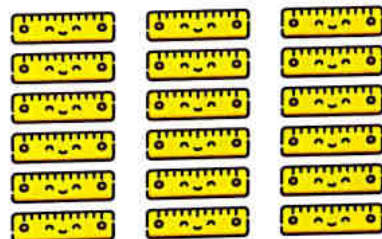
b.



rows of columns

$$\square \times \square = \square$$

$$\square \times \square = \square \times \square$$

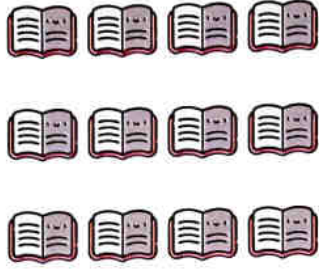


rows of columns

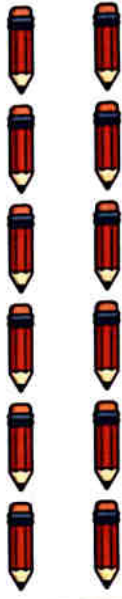
$$\square \times \square = \square$$

2 Write the multiplication sentence for each array. Then draw the array that shows the commutative property.


a.




b.



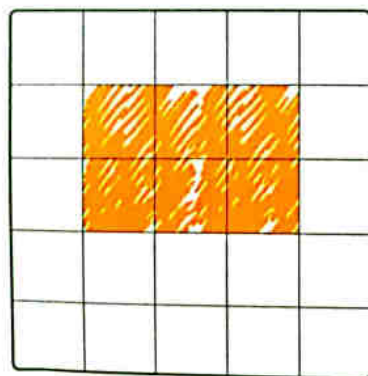
c.



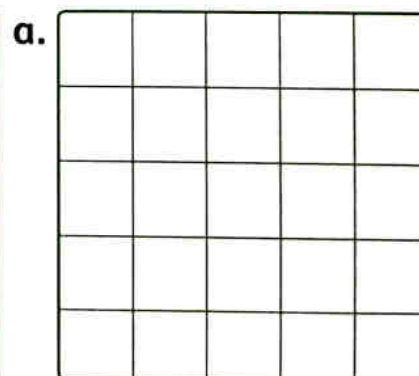
d.



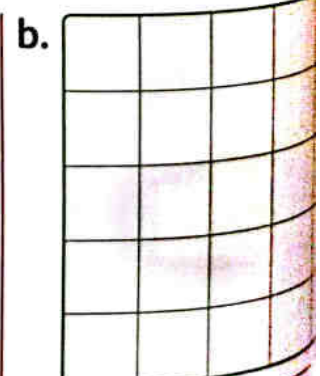
Example Draw the array on the grid according to its multiplication sentence. Write the product. The first one is done for you.



$$2 \times 3 = 6$$



$$5 \times 2 = \square$$



$$4 \times 5 = \square$$

- 4 Draw the array on the grid according to its multiplications sentence. Then draw the array that shows the commutative property. Then, complete. The first one is done for you.

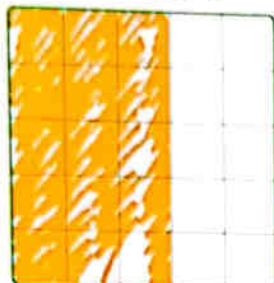
Example

3 rows of 5



$$3 \times 5 = 15$$

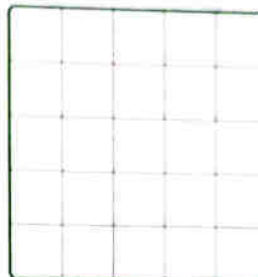
5 rows of 3



$$5 \times 3 = 15$$

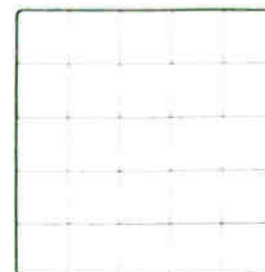
So, $3 \times 5 = 5 \times 3 = 15$

a. 2 rows of 4



$$2 \times 4 = \square$$

4 rows of 2



$$4 \times 2 = \square$$

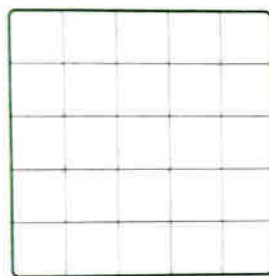
So, $\square \times \square = \square \times \square = \square$

b. 3 rows of 4



$$3 \times 4 = \square$$

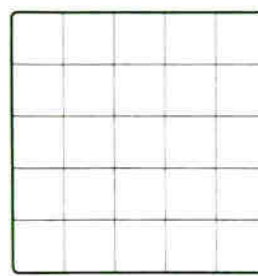
4 rows of 3



$$4 \times 3 = \square$$

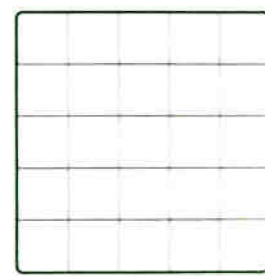
So, $\square \times \square = \square \times \square = \square$

c. 1 row of 5



$$1 \times 5 = \square$$

5 rows of 1

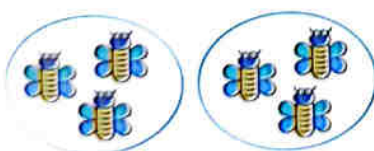


$$5 \times 1 = \square$$

So, $\square \times \square = \square \times \square = \square$

- 5 Complete the following.

a.

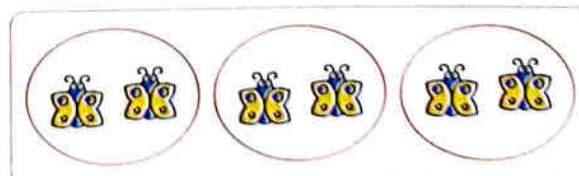


groups of

\times

$=$

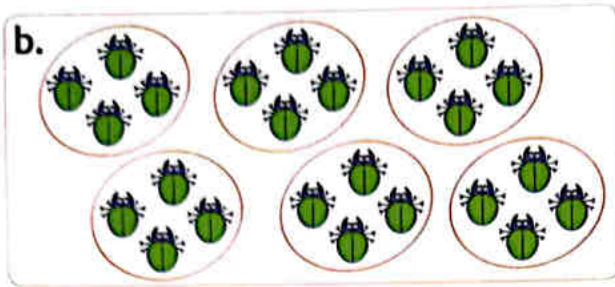
$$\square \times \square = \square \times \square$$



groups of

\times

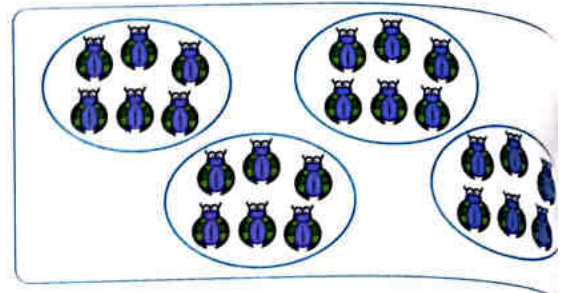
$=$



_____ groups of _____

$$\boxed{} \times \boxed{} = \boxed{}$$

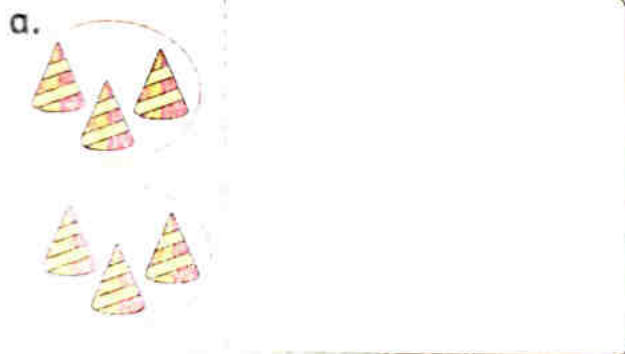
$$\boxed{} \times \boxed{} = \boxed{} \times \boxed{}$$



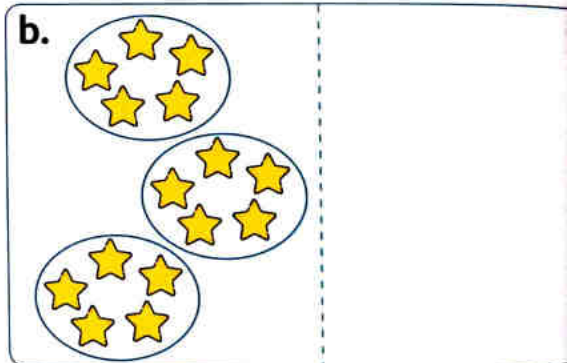
_____ groups of _____

$$\boxed{} \times \boxed{} = \boxed{}$$

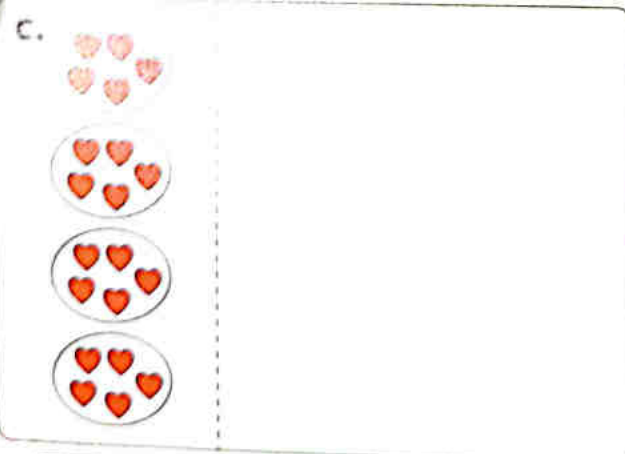
6 Write the multiplication sentence for each equal groups. Then draw the equal groups that shows the commutative property.



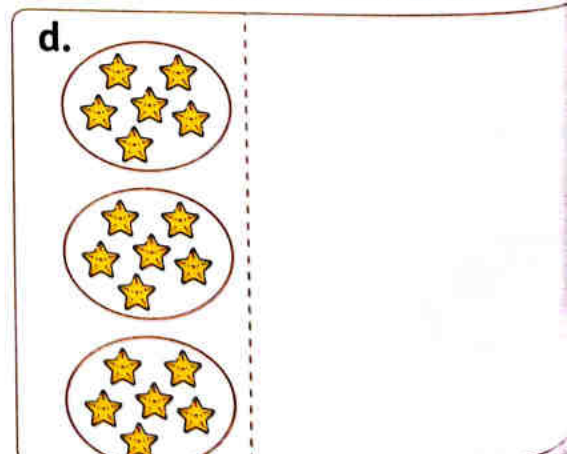
$$\boxed{} \times \boxed{} = \boxed{} \times \boxed{}$$



$$\boxed{} \times \boxed{} = \boxed{} \times \boxed{}$$



$$\boxed{} \times \boxed{} = \boxed{} \times \boxed{}$$



$$\boxed{} \times \boxed{} = \boxed{} \times \boxed{}$$

7 Complete.

a. $3 \times 5 = 5 \times$

c. $\times 6 = \times 4$

e. $7 \times 10 = 10 \times$

b. $2 \times = 9 \times 2$

d. $3 \times = 2 \times$

f. $4 \times = 1 \times$

8 Put (✓) to the correct statement or (X) to the incorrect one.

a. $7 \times 9 = 9 \times 7$ ()

c. $2 \times 9 = 18 = 9 \times 2$ ()

e. $4 \times 7 = 7 + 4$ ()

b. $1 \times 5 = 15 \times 1$ ()

d. $7 + 7 + 7 = 3 + 3 + 3 + 3 + 3 + 3 + 3$ ()

f. $5 \times 6 = 6 - 5$ ()

9 Match.

a. 3×4

b. $2 + 2 + 2 + 2 + 2$

c. 5×3

d. 5×1

3×2

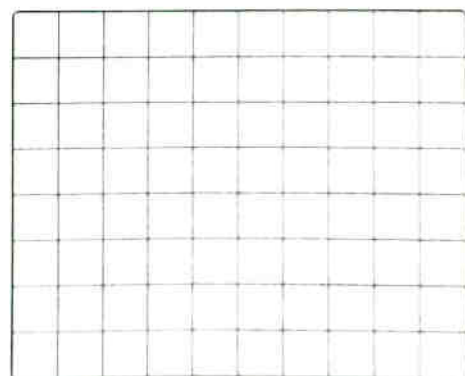
4×3

$5 + 0$

3×5

Challenge

- 10** Draw and color the array on the opposite grid according to the multiplication sentence 7×5 then the number of uncolored blocks is



Place
a smiley
face



1 Choose the correct answer.

- a. The value of the digit 3 in 439,012 is (300,000 or 30,000 or 3,000)
- b. Two hundred fifty-eight thousand, seven hundred thirty-one in standard form is (731,258 or 285,731 or 258,731)
- c. 6,239 in expanded form is (6,000 + 200 + 30 + 9 or 9,000 + 300 + 20 + 6 or 2,000 + 600 + 90 + 9)
- d. 120 thousands () 1,200 hundreds (> or < or =)
- e. 451,679 () 89,879 (> or < or =)
- f. $3 \times 5 = 5 \times$ (3 or 5 or 3)

2 Match.

a. $3 + 3 + 3 + 3$

b. 5×4

c. 2 rows of 3

d. 4 columns of 3

$5 + 5 + 5 + 5$

3×4

2×3

$4 + 4 + 4$

3 Put (✓) to the correct statement or (X) to the incorrect one.

a. $5 + 5 + 5 + 5 + 5 = 5 \times 5$ ()

b. $8 + 4,000 + 60 + 100 = 8,461$ ()

c. The greatest number formed from 3, 0, 8 and 2 is 8,032 ()

d. $5 \times 7 = 7 + 5$ ()

4 Complete.

a. $9 + 9 + 9 = 9 \times$

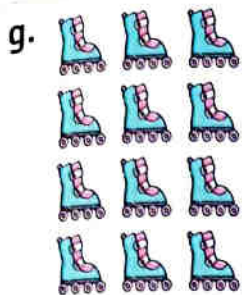
c. 50 thousands and 50 =

e. 2 groups of 5 = +

b. $\times 7 = 7 \times 2$

d. 3 rows of 6 =

f. The value of the digit 0 in any number equals



rows of

$$\boxed{} \times \boxed{} = \boxed{}$$



groups of

$$\boxed{} \times \boxed{} = \boxed{}$$

5 a. Arrange from the greatest to the least.

100,369 , 812,926 , 99,512 , 766 , 812,437

The order is : _____ , _____ , _____ , _____ , _____

b. Arrange from the least to the greatest.

307,040 , 7,403 , 43,007 , 304,700

The order is : _____ , _____ , _____ , _____ , _____

6 Compare using "> , < or =".

a. 7,467

☐ 3,164

b. 300 thousands

☐ 3,000 hundreds

c. 132,045

☐ 93,245

d. 548,176

☐ 548,173

e. One hundred thousand

☐ 99,999

f. 275 thousands and 6

☐ 275,600

g. 25,600 tens

☐ 256 thousands

h. 381,205


☐ 83 thousands and 205



Accumulative Assessment

Till chapter 2



1 Complete.

- $3 \times 1, 3 \times 2, 3 \times 3, 3 \times 4, \underline{\hspace{2cm}}, \underline{\hspace{2cm}}$ (in the same pattern)
- $10 + 10 + 10 + 10 + 10 = \underline{\hspace{2cm}} \times 10$
- 5 thousands, 6 hundreds and 31 ones = $\underline{\hspace{2cm}}$
- 15 m = $\underline{\hspace{2cm}}$ cm
-  $\underline{\hspace{2cm}}$ (in the same pattern)









2 Put (✓) to the correct statement or (X) to the incorrect one.

- $50,000 + 300 + 5,000 + 6 = 55,360$ ()
- 5 group of 3 = $5 + 5 + 5$ ()
- 1 cm = 100 mm ()
- 50 hundreds = 5 thousands. ()
- The greatest 5-digit number is 99,990 ()

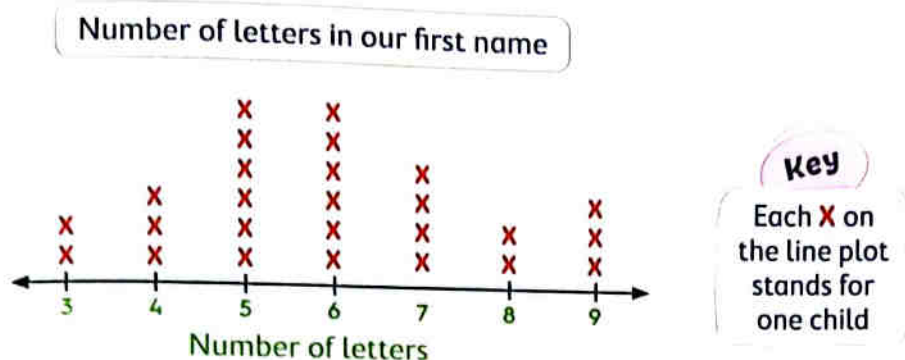
3 Choose the correct answer.

- The tally marks  means $\underline{\hspace{2cm}}$ (3 or 4 or 5)
- 3 cm = $\underline{\hspace{2cm}}$ mm (3 or 30 or 300)
- $5 \times \underline{\hspace{2cm}} = 9 \times 5$ (5 or 9 or 10)
- $9 \times 2 = 9 + \underline{\hspace{2cm}}$ (2 or 11 or 18)
- 95, 85, 75, 65, $\underline{\hspace{2cm}}$ (in the same pattern) (55 or 65 or 75)
- The length of the figure  = $\underline{\hspace{2cm}}$ mm (6 or 60 or 600)

4 Match.

- | | | | |
|---|--|---|--|
| a.  2 cm | b.  2 m | c.  100 cm | d.  10 cm |
|  20 mm |  1 m |  100 mm |  200 cm |

5 Use the line plot to answer the questions.



- How many children have 5 letters in their first name? _____ children.
- What is the smallest number of letters in a child's first name? _____ letters.
- What is the greatest number of letters in a child's first name? _____ letters.

6 Draw a model group. Then write an addition sentence and a multiplication sentence for 3 groups of 2.

7 a. Write the numbers in an ascending order.

7,482

54,658

954,201

12,158

The order is : _____ , _____ , _____ , _____

b. Write the numbers in a descending order.

83,987

8,315

833,400

833,312

The order is : _____ , _____ , _____ , _____

CHAPTER

3



Outcomes and key vocabulary of chapter three :

Outcomes

At the end of chapter three, your child will be able to:

Lessons 21 & 22

- Use a variety of strategies to solve multiplication story problems.
- Explain elements of multiplication story problems.
- Record a multiplication equation to match a story problem.
- Match multiplication equations to story problems.
- Write a multiplication story problem that matches a given equation.

Lesson 23

- Explain the rules for multiplying by 0 and 1.
- Identify common multiples of 2 and 3.
- Predict common multiples of 2 and 3 greater than 120.
- Use evidence to justify and explain mathematical thinking.

Lessons 24 A & 24 B

- Identify the multiples of 5 and 10.
- Identify numerical patterns when multiplying by 5 and 10.
- Explain the relationship between skip counting and multiplication facts.

Lesson 25

- Explore the relationship between multiples of 2, 3 and 6.
- Model the Commutative Property of Multiplication using arrays.
- Identify factor pairs using arrays.

Lessons 26 & 27

- Explain the relationship between skip counting by 5s and telling time to 5-minute increments.
- Read and write time in 5-minute increments on an analog clock.
- Use a variety of strategies to tell time to 5-minute increments.

Lessons 28 & 29

- Explain the relationship between sharing equally and dividing.
- Use a variety of strategies to solve division problems.
- Explain his/her thinking when solving division problems.

Lesson 30

- Describe the relationship between factors and their product.
- Use the division symbol.
- Apply the relationship between multiplication and division to identify fact families.
- Solve division problems with one unknown.

Key vocabulary

- | | | | |
|--|-----------------|------------|----------------|
| • Multiplication | • Product | • Equation | • Equal groups |
| • Multiples | • Skip counting | • Factors | • Pattern |
| • Commutative property of multiplication | | • Array | • Clock |
| • Time | • Hour | • Minute | • Divide |
| • Fair share | • Quotient | • Division | • Fact family |
| • Symbol | | | |

Learn Multiplication story problem

Eman has 3 plates.

There are 2 oranges in each plate.

How many oranges are there in all ?



- Understand
- Plan
- Solve



Understand

- What do you want to find out ? Circle the question.
- What fact do you need ? Underline them.



Plan

- Write a number sentence to solve.

3

x

2

=

?



Solve

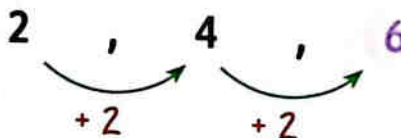
- You can use one of these different ways to solve the problem.

Using repeated addition



$$2 + 2 + 2 = 6$$

Using skip counting



Using objects



This is a 3 rows of 2 array
There is 6 objects.

Check



So, $3 \times 2 = 6$

Said saves 7 L.E. each month.
How much money does he
save in 6 months ?

Work area

Notes for parents

- In these lessons your child will use one of the strategies he/she has studied to solve multiplication story problems.

Exercise 12

Solving multiplication story problems

On Lessons 21 & 22

1 Match each problem to the suitable multiplication sentence.

a. Jana bought 3 packs of ping-pong balls.

Each pack has 5 balls.

How many balls are there ?



$$6 \times 2 = 12$$

b. Andy downloaded 3 games
onto his tablet. The next day
he downloaded 3 more.



How many games has he downloaded ?

$$3 \times 5 = 15$$

c. A guitar has 6 strings.



How many strings are there in 2 guitars ?

$$2 \times 5 = 10$$

d. There are 5 apples in a box.



How many apples in 2 boxes ?

$$3 \times 2 = 6$$

2 Read and solve. You may use counters to solve.

- a. Ahmed has 2 packets of sweets each contains

5 pieces of sweets.

How many pieces of sweets Ahmed has ?



- b. A carpet store has 3 commercials every hour on a local television station.

How many commercials will the store have in 7 hours ?



- c. An apartment building has 4 floors. There are 3 apartments per floor.
How many apartments are in the building ?



- d. Sara bought 5 pens.
The price of each pen is 2 pounds.

What is the price of the pens ?



- e. A box of cans consists of 6 rows and each row contains 4 cans.

How many cans are there in this box ?



Work area

- f. A jar of marbles holds 8 marbles.
How many marbles are there in 4 jars ?



- g. Adam runs 2 hours every day.
What is the number of running hours in 9 days ?



- h. Rana saw 6 dogs in a garden.
How many legs do the 6 dogs have ?



- i. There are 4 oranges in a bag.
How many oranges in 3 bags ?



- j. Magi has 5 boxes of 7 balls each and another 4 boxes of 7 balls each.
How many balls does she have ?



Work area



- 3** Write a multiplication story for each multiplication sentence. Then solve it. You may use counters to solve.

a. 4×5

b. 3×6

c. 2×7

Work area



Challenge

- 4** Think how to solve the multiplication problem 11×12 .

Place
a smiley
face

Work area

Lesson 23

Multiples of 2, 3 and 4

Learn 1 Multiples of 2, 3 and 4

- Multiple is the product of a given whole number by any other.
- You can get multiples of a number by skip counting by this number using a 120 chart.

For example :

To find 2×7

Start at 2 and shade
7 boxes after skip
counting by 2

You will land on 14

So, $2 \times 7 = 14$

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

Also

To find 3×5

Start at 3 and shade
5 boxes after skip
counting by 3

You will land on 15

So, $3 \times 5 = 15$

Multiples of 2

Start from 2
and skip counting by 2



Multiples
of 2 song

$2 \times 1 = 2$
 $2 \times 2 = 4$
 $2 \times 3 = 6$
 $2 \times 4 = 8$
 $2 \times 5 = 10$
 $2 \times 6 = 12$
 $2 \times 7 = 14$
 $2 \times 8 = 16$
 $2 \times 9 = 18$
 $2 \times 10 = 20$



Multiples of 3

Start from 3
and skip counting by 3



Multiples
of 3 song

$3 \times 1 = 3$
 $3 \times 2 = 6$
 $3 \times 3 = 9$
 $3 \times 4 = 12$
 $3 \times 5 = 15$
 $3 \times 6 = 18$
 $3 \times 7 = 21$
 $3 \times 8 = 24$
 $3 \times 9 = 27$
 $3 \times 10 = 30$



Multiples of 4

Start from 4
and skip counting by 4



Multiples
of 4 song

$4 \times 1 = 4$
 $4 \times 2 = 8$
 $4 \times 3 = 12$
 $4 \times 4 = 16$
 $4 \times 5 = 20$
 $4 \times 6 = 24$
 $4 \times 7 = 28$
 $4 \times 8 = 32$
 $4 \times 9 = 36$
 $4 \times 10 = 40$



Check



Find the product.

$2 \times 4 = \underline{\quad}$

$3 \times 7 = \underline{\quad}$

$4 \times 9 = \underline{\quad}$

$2 \times 8 = \underline{\quad}$

$3 \times 5 = \underline{\quad}$

$4 \times 8 = \underline{\quad}$

$2 \times 10 = \underline{\quad}$

$3 \times 4 = \underline{\quad}$

Notes for parents

- Help your child find the product using different strategies as skip counting and arrays.

- Use a 120 chart.
- Skip count by 2 to find multiples of 2 up to 60. Shade each multiple of 2 red.
- Skip count by 3 to find multiples of 3 up to 60. Shade each multiple of 3 blue.



Which numbers are shaded twice?

1	2	3	4	5	6	7	8	9
11	12	13	14	15	16	17	18	19
21	22	23	24	25	26	27	28	29
31	32	33	34	35	36	37	38	39
41	42	43	44	45	46	47	48	49
51	52	53	54	55	56	57	58	59
61	62	63	64	65	66	67	68	69
71	72	73	74	75	76	77	78	79
81	82	83	84	85	86	87	88	89
91	92	93	94	95	96	97	98	99
101	102	103	104	105	106	107	108	109
111	112	113	114	115	116	117	118	119

- The numbers are 6, 12, 18, 24, 30, 36, 42, 48, 54, 60
These numbers are common multiples of 2 and 3 up to 60

What do you notice about these numbers?



- The numbers are increasing in the same pattern
its rule is $+ 6$

So, you can predict the next common multiple

$$60 + 6 = 66$$

Check



Use the chart. Ring the multiples of 2 and underline the multiples of 3 then, find the multiples of 2 and 3 together.

23	12	15	18	30	66	33
22	48	96	100	54	27	32
20	13	24	29	40	42	50

The common multiples of 2 and 3 together are

Notes for parents

- Help your child to find 3 common multiples of 2 and 3 greater than 70

Learn 3 Multiplying by 1 and 0

- Ahmed has 5 baskets.
There is 1 orange in each basket.
How many oranges are there in all ?



$$5 \times 1 = 5 \text{ oranges}$$

- Rasha has 3 baskets.
There is 0 oranges in each basket.
How many oranges are there in all ?



$$3 \times 0 = 0 \text{ oranges}$$

Any number multiplied by 1 equals the same number.



Any number multiplied by 0 equals 0

Check



The multiplication operation is commutative.



Find each product.

5×1

4×1

9×1

0×5

7×1

12×0

$$\begin{array}{r} 6 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \times 1 \\ \hline \end{array}$$

* Ask your child which is greater, the product of his/her age times 0 or the product of his/her age times 1 ?

Exercise 13

Multiples of 2, 3 and 4

On Lesson 23



Play game

1 Find the product.

$$2 \times 0 = \underline{\hspace{2cm}}$$

$$2 \times 1 = \underline{\hspace{2cm}}$$

$$2 \times 2 = \underline{\hspace{2cm}}$$

$$2 \times 3 = \underline{\hspace{2cm}}$$

$$2 \times 4 = \underline{\hspace{2cm}}$$

$$2 \times 5 = \underline{\hspace{2cm}}$$

$$2 \times 6 = \underline{\hspace{2cm}}$$

$$2 \times 7 = \underline{\hspace{2cm}}$$

$$2 \times 8 = \underline{\hspace{2cm}}$$

$$2 \times 9 = \underline{\hspace{2cm}}$$

$$2 \times 10 = \underline{\hspace{2cm}}$$

$$3 \times 0 = \underline{\hspace{2cm}}$$

$$3 \times 1 = \underline{\hspace{2cm}}$$

$$3 \times 2 = \underline{\hspace{2cm}}$$

$$3 \times 3 = \underline{\hspace{2cm}}$$

$$3 \times 4 = \underline{\hspace{2cm}}$$

$$3 \times 5 = \underline{\hspace{2cm}}$$

$$3 \times 6 = \underline{\hspace{2cm}}$$

$$3 \times 7 = \underline{\hspace{2cm}}$$

$$3 \times 8 = \underline{\hspace{2cm}}$$

$$3 \times 9 = \underline{\hspace{2cm}}$$

$$3 \times 10 = \underline{\hspace{2cm}}$$

$$4 \times 0 = \underline{\hspace{2cm}}$$

$$4 \times 1 = \underline{\hspace{2cm}}$$

$$4 \times 2 = \underline{\hspace{2cm}}$$

$$4 \times 3 = \underline{\hspace{2cm}}$$

$$4 \times 4 = \underline{\hspace{2cm}}$$

$$4 \times 5 = \underline{\hspace{2cm}}$$

$$4 \times 6 = \underline{\hspace{2cm}}$$

$$4 \times 7 = \underline{\hspace{2cm}}$$

$$4 \times 8 = \underline{\hspace{2cm}}$$

$$4 \times 9 = \underline{\hspace{2cm}}$$

$$4 \times 10 = \underline{\hspace{2cm}}$$

$$2 \times 7 = \underline{\hspace{2cm}}$$

$$2 \times 5 = \underline{\hspace{2cm}}$$

$$2 \times 2 = \underline{\hspace{2cm}}$$

$$2 \times 3 = \underline{\hspace{2cm}}$$

$$2 \times 9 = \underline{\hspace{2cm}}$$

$$2 \times 1 = \underline{\hspace{2cm}}$$

$$2 \times 4 = \underline{\hspace{2cm}}$$

$$2 \times 8 = \underline{\hspace{2cm}}$$

$$2 \times 6 = \underline{\hspace{2cm}}$$

$$2 \times 10 = \underline{\hspace{2cm}}$$

$$2 \times 0 = \underline{\hspace{2cm}}$$

$$3 \times 5 = \underline{\hspace{2cm}}$$

$$3 \times 1 = \underline{\hspace{2cm}}$$

$$3 \times 7 = \underline{\hspace{2cm}}$$

$$3 \times 0 = \underline{\hspace{2cm}}$$

$$3 \times 9 = \underline{\hspace{2cm}}$$

$$3 \times 2 = \underline{\hspace{2cm}}$$

$$3 \times 10 = \underline{\hspace{2cm}}$$

$$3 \times 4 = \underline{\hspace{2cm}}$$

$$3 \times 6 = \underline{\hspace{2cm}}$$

$$3 \times 3 = \underline{\hspace{2cm}}$$

$$3 \times 8 = \underline{\hspace{2cm}}$$

$$4 \times 3 = \underline{\hspace{2cm}}$$

$$4 \times 9 = \underline{\hspace{2cm}}$$

$$4 \times 6 = \underline{\hspace{2cm}}$$

$$4 \times 1 = \underline{\hspace{2cm}}$$

$$4 \times 10 = \underline{\hspace{2cm}}$$

$$4 \times 0 = \underline{\hspace{2cm}}$$

$$4 \times 2 = \underline{\hspace{2cm}}$$

$$4 \times 7 = \underline{\hspace{2cm}}$$

$$4 \times 4 = \underline{\hspace{2cm}}$$

$$4 \times 8 = \underline{\hspace{2cm}}$$

$$4 \times 5 = \underline{\hspace{2cm}}$$



2 Find each product.

a. 3×7

b. 2×4

c. 2×8

d. 3×8

e. 1×2

f. 5×3

g. 2×2

h. 3×4

i. 4×7

j. 4×3

k. 4×4

l. 3×5

m. 2×4

n. 4×10

o. 6×4

p. 4×8

q. 2×3

r. 2×7

s. 2×6

t. 3×6

u. 2×1

v. 5×2

w. 2×9

x. 10×3

y. 3×3

z. 3×2

3 Find the product.

a.
$$\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$$

b.
$$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$$

c.
$$\begin{array}{r} 4 \\ \times 1 \\ \hline \end{array}$$

d.
$$\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$$

e.
$$\begin{array}{r} 2 \\ \times 10 \\ \hline \end{array}$$

f.
$$\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$$

g.
$$\begin{array}{r} 3 \\ \times 0 \\ \hline \end{array}$$

h.
$$\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$$

i.
$$\begin{array}{r} 3 \\ \times 1 \\ \hline \end{array}$$

j.
$$\begin{array}{r} 1 \\ \times 3 \\ \hline \end{array}$$

k.
$$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$$

l.
$$\begin{array}{r} 4 \\ \times 2 \\ \hline \end{array}$$

m.
$$\begin{array}{r} 6 \\ \times 0 \\ \hline \end{array}$$

n.
$$\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$$


o.
$$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$$

4 Put (✓) to the correct statement or (X) to the incorrect statement.

- | | | | |
|-------------------------------|-----|------------------------------|-----|
| a. $3 \times 5 = 8$ | () | b. $2 \times 7 = 14$ | () |
| c. $1 \times 4 = 4$ | () | d. $4 \times 10 = 14$ | () |
| e. $0 \times 7 = 7$ | () | f. $2 \times 6 = 12$ | () |
| g. $2 \times 5 = 5 + 5 = 10$ | () | h. $3 \times 9 = 3 + 3 + 3$ | () |
| i. $3 \times 2 = 6 + 0$ | () | j. $2 \times 8 = 4 \times 4$ | () |
| k. $3 \times 3 = 3 + 3$ | () | l. $1 \times 3 = 1 + 1 + 1$ | () |
| m. $4 \times 7 = 28$ | () | n. $0 \times 7 = 0 + 7$ | () |
| o. $4 \times 5 = 2 \times 10$ | () | p. $0 \times 9 = 0$ | () |

5 Join the equal results.

- a. 2×5 b. 2×3 c. 3×3 d. 2×9 e. 4×3
- $6 + 3$ 3×6 6×2 $5 + 5$ 3×2

 Color the multiplication sentences in each row that have the same product.

- a. 4×3 3×5 2×6
- b. 2×10 8×3 4×6
- c. 3×6 9×2 4×4
- d. 4×0 0×3 4×1

7 Choose the correct answer.

a. $2 \times \underline{\quad} = 10$
☐ 10 ☐ 5
☐ 3 ☐ 8

b. $\underline{\quad} \times 3 = 30$
☐ 6 ☐ 8
☐ 10 ☐ 5

c. $\underline{\quad} \times 2 = 18$
☐ 8 ☐ 16
☐ 7 ☐ 9

d. $2 \times \underline{\quad} = 4 + 4 + 4$
☐ 2 ☐ 4
☐ 6 ☐ 8

e. $4 \times \underline{\quad} = 36$
☐ 10 ☐ 8
☐ 9 ☐ 1

f. $1 \times \underline{\quad} = 9$
☐ 1 ☐ 8
☐ zero ☐ 9

g. $0 \times 7 = \underline{\quad}$
☐ zero ☐ 7
☐ 1 ☐ 5

h. $\underline{\quad} \times 7 = 14$
☐ 1 ☐ 2
☐ 3 ☐ 4

i. $\underline{\quad} \times 8 = 24$
☐ 1 ☐ 2
☐ 3 ☐ 4

j. $\underline{\quad} \times 10 = 40$
☐ 1 ☐ 2
☐ 3 ☐ 4

k. $2 \times \underline{\quad} = 16$
☐ 5 ☐ 7
☐ 8 ☐ 9

l. $3 \times \underline{\quad} = 21$
☐ 5 ☐ 6
☐ 7 ☐ 8

m. $4 \times \underline{\quad} = 16$
☐ 1 ☐ 2
☐ 3 ☐ 4

n. $1 \times \underline{\quad} = 8$
☐ 6 ☐ 7
☐ 8 ☐ 9

o. $\underline{\quad} \times 10 = \text{zero}$
☐ 0 ☐ 1
☐ 2 ☐ 3

p. $\underline{\quad} \times 5 = 5$
☐ 0 ☐ 1
☐ 2 ☐ 3

8 Put "< , > or =".

- | | | |
|------------------------|----------------------|--------------|
| a. 3×5 | <input type="text"/> | 2×4 |
| c. $0 + 3$ | <input type="text"/> | 0×3 |
| e. $15 - 5$ | <input type="text"/> | 2×5 |
| g. 2×9 | <input type="text"/> | 3×6 |
| i. $7 + 7$ | <input type="text"/> | 3×7 |
| k. $9 + 9 + 9$ | <input type="text"/> | 3×9 |
| m. $1 + 1 + 1 + 1 + 1$ | <input type="text"/> | 1×6 |
| o. 3×9 | <input type="text"/> | 2×9 |
| q. 2×10 | <input type="text"/> | 4×5 |

- | | | |
|-----------------|----------------------|---------------|
| b. 1×4 | <input type="text"/> | 0×4 |
| d. 2×2 | <input type="text"/> | $2 + 2$ |
| f. 4×4 | <input type="text"/> | $4 - 4$ |
| h. 3×9 | <input type="text"/> | 3×10 |
| j. $8 - 8$ | <input type="text"/> | 2×8 |
| l. 4×7 | <input type="text"/> | $68 - 40$ |
| n. $3 - 3$ | <input type="text"/> | 3×0 |
| p. 4×6 | <input type="text"/> | 4×10 |
| r. 2×5 | <input type="text"/> | 3×4 |

9 Word problems on Multiples of 2 , 3 , 4

- a. If the price of one metre of cloth is 9 L.E., then find the price of 4 metres of this cloth.

The price of 4 metres = _____ = _____ L.E.



- b. How many flowers are there in 3 bunches of flowers if each has 10 flowers ?

The number of flowers in the bunches = _____ = _____ flowers.



- c. There are 2 lions in a cage.

How many lions are there in 8 cages ?

The number of lions = _____ = _____ lions.



10 Use the chart.

a. Ring the multiples of 2

15 24 32 17 50 44

b. Ring the multiples of 3

22 18 40 20 33 13

c. Ring the multiples of 4

5 16 12 20 31 17

d. Write the multiples of 2 up to 30

e. Write the multiples of 2 between 31 and 55

f. Write the multiples of 3 up to 40

g. Write the multiples of 3 between 41 and 50

h. Write the multiples of 4 up to 50

i. Write three common multiples of 2 and 3 greater than 40 and smaller than 70

j. Write three common multiples of 2 and 3 between 80 and 100

11 Complete. Write $+$ or \times .

a. $8 \quad 1 = 9$

b. $9 \quad 1 = 9$

c. $0 \quad 5 = 5$

d. $2 \quad 0 = 2$

e. $0 \quad 7 = 0$

f. $1 \quad 7 = 8$



Challenge

12 Three numbers, their sum equals their product.

What are these numbers?

Place
a smiley
face

Lesson 24A

Multiples of 5, 6 and 7

Learn Multiples of 5, 6 and 7

- You can get multiples of 5, 6 or 7 by skip counting by this number using a 120 chart

For example :

To find 5×6
start at 5 and shade
6 boxes after skip
counting by 5
You will land on 30
So, $5 \times 6 = 30$

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

Also :

To find 6×7
start at 6 and shade
7 boxes after skip
counting by 6
You will land on 42
So, $6 \times 7 = 42$

Multiples of 5

Start from 5
and skip counting by 5



Multiples of 5 song

$$\begin{aligned} 5 \times 1 &= 5 \\ 5 \times 2 &= 10 \\ 5 \times 3 &= 15 \\ 5 \times 4 &= 20 \\ 5 \times 5 &= 25 \\ 5 \times 6 &= 30 \\ 5 \times 7 &= 35 \\ 5 \times 8 &= 40 \\ 5 \times 9 &= 45 \\ 5 \times 10 &= 50 \end{aligned}$$



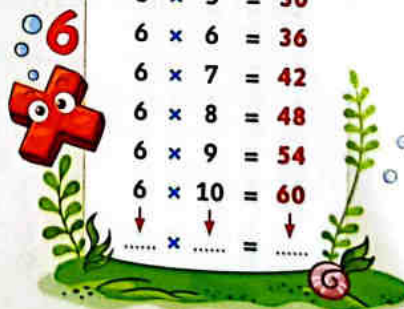
Multiples of 6

Start from 6
and skip counting by 6



Multiples of 6 song

$$\begin{aligned} 6 \times 1 &= 6 \\ 6 \times 2 &= 12 \\ 6 \times 3 &= 18 \\ 6 \times 4 &= 24 \\ 6 \times 5 &= 30 \\ 6 \times 6 &= 36 \\ 6 \times 7 &= 42 \\ 6 \times 8 &= 48 \\ 6 \times 9 &= 54 \\ 6 \times 10 &= 60 \end{aligned}$$



Multiples of 7

Start from 7
and skip counting by 7



Multiples of 7 song

$$\begin{aligned} 7 \times 1 &= 7 \\ 7 \times 2 &= 14 \\ 7 \times 3 &= 21 \\ 7 \times 4 &= 28 \\ 7 \times 5 &= 35 \\ 7 \times 6 &= 42 \\ 7 \times 7 &= 49 \\ 7 \times 8 &= 56 \\ 7 \times 9 &= 63 \\ 7 \times 10 &= 70 \end{aligned}$$



Check



Find the product.

$5 \times 7 = \underline{\quad}$

$6 \times 8 = \underline{\quad}$

$7 \times 4 = \underline{\quad}$

$5 \times 9 = \underline{\quad}$

$7 \times 8 = \underline{\quad}$

$5 \times 6 = \underline{\quad}$

$6 \times 3 = \underline{\quad}$

$6 \times 10 = \underline{\quad}$

Notes for parents

- Help your child skip counting by 5, 6 and 7 on the 120 chart.

Exercise 14

Multiples of 5, 6 and 7

On Lesson 24 A



Play game

1 Find the product.

$5 \times 0 = \underline{\hspace{2cm}}$

$5 \times 1 = \underline{\hspace{2cm}}$

$5 \times 2 = \underline{\hspace{2cm}}$

$5 \times 3 = \underline{\hspace{2cm}}$

$5 \times 4 = \underline{\hspace{2cm}}$

$5 \times 5 = \underline{\hspace{2cm}}$

$5 \times 6 = \underline{\hspace{2cm}}$

$5 \times 7 = \underline{\hspace{2cm}}$

$5 \times 8 = \underline{\hspace{2cm}}$

$5 \times 9 = \underline{\hspace{2cm}}$

$5 \times 10 = \underline{\hspace{2cm}}$

$6 \times 0 = \underline{\hspace{2cm}}$

$6 \times 1 = \underline{\hspace{2cm}}$

$6 \times 2 = \underline{\hspace{2cm}}$

$6 \times 3 = \underline{\hspace{2cm}}$

$6 \times 4 = \underline{\hspace{2cm}}$

$6 \times 5 = \underline{\hspace{2cm}}$

$6 \times 6 = \underline{\hspace{2cm}}$

$6 \times 7 = \underline{\hspace{2cm}}$

$6 \times 8 = \underline{\hspace{2cm}}$

$6 \times 9 = \underline{\hspace{2cm}}$

$6 \times 10 = \underline{\hspace{2cm}}$

$7 \times 0 = \underline{\hspace{2cm}}$

$7 \times 1 = \underline{\hspace{2cm}}$

$7 \times 2 = \underline{\hspace{2cm}}$

$7 \times 3 = \underline{\hspace{2cm}}$

$7 \times 4 = \underline{\hspace{2cm}}$

$7 \times 5 = \underline{\hspace{2cm}}$

$7 \times 6 = \underline{\hspace{2cm}}$

$7 \times 7 = \underline{\hspace{2cm}}$

$7 \times 8 = \underline{\hspace{2cm}}$

$7 \times 9 = \underline{\hspace{2cm}}$

$7 \times 10 = \underline{\hspace{2cm}}$

2 Find the product.

$5 \times 6 = \underline{\hspace{2cm}}$

$5 \times 2 = \underline{\hspace{2cm}}$

$5 \times 1 = \underline{\hspace{2cm}}$

$5 \times 8 = \underline{\hspace{2cm}}$

$5 \times 0 = \underline{\hspace{2cm}}$

$5 \times 3 = \underline{\hspace{2cm}}$

$5 \times 10 = \underline{\hspace{2cm}}$

$5 \times 7 = \underline{\hspace{2cm}}$

$5 \times 5 = \underline{\hspace{2cm}}$

$5 \times 4 = \underline{\hspace{2cm}}$

$5 \times 9 = \underline{\hspace{2cm}}$

$6 \times 4 = \underline{\hspace{2cm}}$

$6 \times 10 = \underline{\hspace{2cm}}$

$6 \times 0 = \underline{\hspace{2cm}}$

$6 \times 3 = \underline{\hspace{2cm}}$

$6 \times 1 = \underline{\hspace{2cm}}$

$6 \times 6 = \underline{\hspace{2cm}}$

$6 \times 5 = \underline{\hspace{2cm}}$

$6 \times 8 = \underline{\hspace{2cm}}$

$6 \times 2 = \underline{\hspace{2cm}}$

$6 \times 7 = \underline{\hspace{2cm}}$

$6 \times 9 = \underline{\hspace{2cm}}$

$7 \times 8 = \underline{\hspace{2cm}}$

$7 \times 1 = \underline{\hspace{2cm}}$

$7 \times 9 = \underline{\hspace{2cm}}$

$7 \times 0 = \underline{\hspace{2cm}}$

$7 \times 2 = \underline{\hspace{2cm}}$

$7 \times 10 = \underline{\hspace{2cm}}$

$7 \times 6 = \underline{\hspace{2cm}}$

$7 \times 3 = \underline{\hspace{2cm}}$

$7 \times 5 = \underline{\hspace{2cm}}$

$7 \times 4 = \underline{\hspace{2cm}}$

$7 \times 7 = \underline{\hspace{2cm}}$

3 Find each product.

- a. 7×7 b. 5×6 c. 6×4 d. 7×3
- e. 6×8 f. 7×10 g. 6×5 h. 5×2
- i. 5×8 j. 5×4 k. 5×1 l. 5×9
- m. 7×4 n. 5×7 o. 6×6 p. 6×7
- q. 6×9 r. 7×8 s. 7×5 t. 7×2
- u. 5×5 v. 7×0 w. 6×3 x. 7×6
- y. 7×9 z. 5×3

Find the result.

- a.
$$\begin{array}{r} 10 \\ \times 5 \\ \hline \end{array}$$
- b.
$$\begin{array}{r} 10 \\ \times 7 \\ \hline \end{array}$$
- c.
$$\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$$
- d.
$$\begin{array}{r} 5 \\ \times 5 \\ \hline \end{array}$$
- e.
$$\begin{array}{r} 5 \\ \times 6 \\ \hline \end{array}$$
- f.
$$\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$$
- g.
$$\begin{array}{r} 8 \\ \times 7 \\ \hline \end{array}$$
- h.
$$\begin{array}{r} 10 \\ \times 6 \\ \hline \end{array}$$
- i.
$$\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$$





5 put "> , = or <".

- | | | |
|--------------------|----------------------|--------------|
| a. 5×5 | <input type="text"/> | 6×6 |
| c. 7×3 | <input type="text"/> | 6×5 |
| e. 5×8 | <input type="text"/> | 7×4 |
| g. 7×5 | <input type="text"/> | 5×3 |
| i. 7×4 | <input type="text"/> | 6×7 |
| k. 6×9 | <input type="text"/> | 7×7 |
| m. 6×8 | <input type="text"/> | 7×7 |
| o. 7×7 | <input type="text"/> | $7 + 7$ |
| q. 6×8 | <input type="text"/> | 7×9 |
| s. 7×10 | <input type="text"/> | 6×9 |
| u. 5×9 | <input type="text"/> | 7×8 |
| w. $7 + 7 + 7 + 7$ | <input type="text"/> | 7×7 |
| y. $7 + 5$ | <input type="text"/> | 5×6 |

- | | | |
|--------------------|----------------------|---------------|
| b. 5×7 | <input type="text"/> | 5×8 |
| d. $5 + 5$ | <input type="text"/> | 5×5 |
| f. 5×5 | <input type="text"/> | 5×10 |
| h. 6×6 | <input type="text"/> | 6×5 |
| j. 5×7 | <input type="text"/> | 7×3 |
| l. 6×4 | <input type="text"/> | 5×7 |
| n. $5 + 5$ | <input type="text"/> | 5×2 |
| p. 7×0 | <input type="text"/> | $7 + 0$ |
| r. 5×5 | <input type="text"/> | 6×4 |
| t. 6×1 | <input type="text"/> | 7×0 |
| v. 7×6 | <input type="text"/> | 6×7 |
| x. $6 + 6 + 6 + 6$ | <input type="text"/> | 6×4 |
| z. $11 + 9$ | <input type="text"/> | 5×4 |

6 Choose the correct answer.

- a. $5 \times 6 =$ _____ (3 \times 10 or 4 \times 10 or 6 \times 6 or 7 \times 9)
- b. $6 \times 7 >$ _____ (63 or 72 or 27 or 100)
- c. $4 \times 7 >$ _____ (8 \times 3 or 4 \times 10 or 9 \times 5 or 6 \times 10)
- d. $10 \times 3 =$ _____
(10 + 10 + 10 or 10 + 10 + 10 + 10 or 10 + 10 + 10 + 10 + 10 or 10 + 10)
- e. $7 \times 5 =$ _____ (53 or 42 or 35 or 12)
- f. $6 \times 9 = 50 +$ _____ (1 or 2 or 3 or 4)
- g. $7 \times 1 =$ _____ + 7 (0 or 1 or 2 or 3)
- h. $0 \times 6 =$ _____ (1 + 1 or 1 - 1 or 1 \times 1 or 8)
- i. $5 \times 9 =$ _____ (19 or 40 + 5 or 54 or 14)
- j. All the following equals to 30 except _____
(5 \times 6 or 3 \times 10 or 3 + 10 or 6 \times 5)

- k. All the following are equal to 28 except
(6×4 or 4×7 or 7×4 or 2 tens and 8)
- l. Which of the following is equal to 48?
(5×8 or 7×8 or 6×8 or $8 + 8 + 8$)
- m. Which of the following is equal to 40?
(6×7 or 7×5 or 5×8 or 4)

7 Match.

a. 4×9 b. 0×6 c. 2×9 d. 6×1 e. $6 \times$

1. 7×0 2. 6×6 3. 3×6 4. $20 + 4$ 5. $6 +$

8 Put (✓) to the correct statement or (X) to the incorrect one.

- a. $5 \times 8 = 4 \times 10 = 40$ ()
- b. $6 \times 7 < 5 \times 8$ ()
- c. $6 + 6 + 6 + 6 + 6 + 6 = 6 \times 6 = 66$ ()
- d. $7 \times 1 = 7 + 0$ ()
- e. $7 \times 0 = 0 \times 5$ ()
- f. $7 \times 5 > 5 \times 6$ ()
- g. $7 \times 6 = 40 + 2$ ()
- h. $5 + 5 + 5 = 5 \times 3 = 15$ ()
- i. $7 \times 9 = 36$ ()
- j. $6 \times 5 = 3 \times 10$ ()
- k. $6 \times 9 < 6 \times 10$ ()
- l. $7 + 7 + 7 + 7 + 7 + 7 + 7 > 7 \times 6$ ()
- m. $5 \times 1 = 5 + 1$ ()
- n. $30 = 6 \times 5 = 5 \times 6$ ()



9 Use the chart. Choose yes or no.

a. Is 15 a multiple of 5?

Yes No

c. Is 54 a multiple of 7?

Yes No

e. Is 6 a multiple of 6?

Yes No

b. Is 70 a multiple of 5?

Yes No

d. Is 63 a multiple of 7?

Yes No

f. Is 1 a multiple of 6?

Yes No

10 word problems.

a. If the weight of one fish is 2 kg.

Find the weight of 6 fish.

The weight of 9 fish = _____ = _____ kg.



b. The pupils of one of the third primary classes

stood in 5 lines with 8 pupils in each line.

How many pupils are there in this class?

Number of the pupils = _____ = _____ pupils.



c. Aly bought 7 bars of chocolate for 4 pounds each.

How much money did Aly pay?

Aly paid = _____ = _____ pounds.



d. Nagwa bought 5 bags of oranges and each bag

contains 9 oranges.

How many oranges did Nagwa buy?

The number of oranges = _____ = _____ oranges.



11 Use the chart.

a. Write the first three common multiples of 5 and 6.

b. Write the first three common multiples of 5 and 7.



Challenge

12 How many common multiples of 5, 6 and 7 are there up to 120?

(you can use a 120)

Place
a smile
face



Lesson 24B

Multiples of 8, 9 and 10

Learn 1 Multiples of 8, 9 and 10

You can get multiples of 8, 9 or 10 by skip counting by this number using a 120 chart.

For example :

To find 8×9
start at 8 and shade
9 boxes after skip
counting by 8
You will land on 72

So, $8 \times 9 = 72$

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

Also :

To find 10×8
start at 10 and
shade 8 boxes after
skip counting by 10
You will land on 80

So, $10 \times 8 = 80$

Multiples of 8

Start from 8
and skip counting by 8



Multiples
of 8 song



$8 \times 1 = 8$
 $8 \times 2 = 16$
 $8 \times 3 = 24$
 $8 \times 4 = 32$
 $8 \times 5 = 40$
 $8 \times 6 = 48$
 $8 \times 7 = 56$
 $8 \times 8 = 64$
 $8 \times 9 = 72$
 $8 \times 10 = 80$



Multiples
of 9 song



$9 \times 1 = 9$
 $9 \times 2 = 18$
 $9 \times 3 = 27$
 $9 \times 4 = 36$
 $9 \times 5 = 45$
 $9 \times 6 = 54$
 $9 \times 7 = 63$
 $9 \times 8 = 72$
 $9 \times 9 = 81$
 $9 \times 10 = 90$

Multiples of 10

Start from 10
and skip counting by 10



$10 \times 1 = 10$
 $10 \times 2 = 20$
 $10 \times 3 = 30$
 $10 \times 4 = 40$
 $10 \times 5 = 50$
 $10 \times 6 = 60$
 $10 \times 7 = 70$
 $10 \times 8 = 80$
 $10 \times 9 = 90$
 $10 \times 10 = 100$

Check



Use the chart. Find each product.

$8 \times 7 = \underline{\quad}$

$9 \times 9 = \underline{\quad}$

$10 \times 3 = \underline{\quad}$

$8 \times 5 = \underline{\quad}$

$8 \times 8 = \underline{\quad}$

$7 \times 10 = \underline{\quad}$

$6 \times 9 = \underline{\quad}$

$9 \times 8 = \underline{\quad}$

Notes for parents

• Help your child discover that the ones digit for the multiples of 10 is 0.

Learn 2 Common multiples of 5 and 10

- Using a 120 chart.
- Draw a circle around each multiple of 5 and a triangle on each multiple of 10 on this chart up to 60.
- Which numbers are marked twice on the chart ?
 - The numbers are 10, 20, 30, 40, 50, 60
 - These numbers are common multiples of 5 and 10
- What do you notice about these numbers ?
 - The ones digit is 0

1	2	3	4	5	6	7	8	9
11	12	13	14	15	16	17	18	19
21	22	23	24	25	26	27	28	29
31	32	33	34	35	36	37	38	39
41	42	43	44	45	46	47	48	49
51	52	53	54	55	56	57	58	59
61	62	63	64	65	66	67	68	69
71	72	73	74	75	76	77	78	79
81	82	83	84	85	86	87	88	89
91	92	93	94	95	96	97	98	99
101	102	103	104	105	106	107	108	109
111	112	113	114	115	116	117	118	119



Check



Circle the multiples of 5 and underline the multiples of 10 then deduce the common multiples of 5 and 10.

15 50 55 65 70 25
40 105 110 90 85 30



- Multiples of 5 are _____
- Multiples of 10 are _____
- The common multiples of 5 and 10 are _____

Notes for parents

- Ask your child to find common multiple of 5 and 10 greater than 60.

Exercise 15

Multiples of 8, 9 and 10

On Lesson 24 B



Play game

1 Find the product.

$8 \times 0 =$

$8 \times 1 =$

$8 \times 2 =$

$8 \times 3 =$

$8 \times 4 =$

$8 \times 5 =$

$8 \times 6 =$

$8 \times 7 =$

$8 \times 8 =$

$8 \times 9 =$

$8 \times 10 =$

$9 \times 0 =$

$9 \times 1 =$

$9 \times 2 =$

$9 \times 3 =$

$9 \times 4 =$

$9 \times 5 =$

$9 \times 6 =$

$9 \times 7 =$

$9 \times 8 =$

$9 \times 9 =$

$9 \times 10 =$

$10 \times 0 =$

$10 \times 1 =$

$10 \times 2 =$

$10 \times 3 =$

$10 \times 4 =$

$10 \times 5 =$

$10 \times 6 =$

$10 \times 7 =$

$10 \times 8 =$

$10 \times 9 =$

$10 \times 10 =$

2 Find the result.

$8 \times 3 =$

$8 \times 5 =$

$8 \times 9 =$

$8 \times 0 =$

$8 \times 7 =$

$8 \times 2 =$

$8 \times 4 =$

$8 \times 6 =$

$8 \times 8 =$

$8 \times 1 =$

$8 \times 10 =$

$9 \times 8 =$

$9 \times 2 =$

$9 \times 6 =$

$9 \times 10 =$

$9 \times 4 =$

$9 \times 0 =$

$9 \times 7 =$

$9 \times 3 =$

$9 \times 9 =$

$9 \times 5 =$

$9 \times 1 =$

$10 \times 0 =$

$10 \times 3 =$

$10 \times 6 =$

$10 \times 9 =$

$10 \times 1 =$

$10 \times 4 =$

$10 \times 7 =$

$10 \times 5 =$

$10 \times 2 =$

$10 \times 8 =$

$10 \times 10 =$

3 Find each product.

- a. 8×7 b. 9×6 c. 10×4 d. 8×0
- e. 9×5 f. 10×10 g. 8×2 h. 9×9
- i. 10×6 j. 8×4 k. 9×1 l. 10×7
- m. 8×1 n. 9×8 o. 8×3 p. 9×4
- q. 8×8 r. 10×8 s. 8×10 t. 9×7
- u. 8×5 v. 8×9 w. 8×6 x. 10×5
- y. 10×9 z. 10×3

4 Find the product.

- a.
$$\begin{array}{r} 10 \\ \times 4 \\ \hline \end{array}$$
 b.
$$\begin{array}{r} 10 \\ \times 10 \\ \hline \end{array}$$
 c.
$$\begin{array}{r} 2 \\ \times 10 \\ \hline \end{array}$$
 d.
$$\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$$
 e.
$$\begin{array}{r} \\ \times \\ \hline \end{array}$$
- f.
$$\begin{array}{r} 3 \\ \times 10 \\ \hline \end{array}$$
 g.
$$\begin{array}{r} 6 \\ \times 8 \\ \hline \end{array}$$
 h.
$$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$$
 i.
$$\begin{array}{r} 1 \\ \times 10 \\ \hline \end{array}$$
 j.
$$\begin{array}{r} \\ \times 1 \\ \hline \end{array}$$
- k.
$$\begin{array}{r} 9 \\ \times 10 \\ \hline \end{array}$$
 l.
$$\begin{array}{r} 10 \\ \times 8 \\ \hline \end{array}$$



5 put "> , = or <".



- | | | |
|--------------------|----------------------|---------------|
| a. 9×5 | <input type="text"/> | 8×6 |
| c. 10×3 | <input type="text"/> | 9×5 |
| e. 8×8 | <input type="text"/> | 10×4 |
| g. 8×5 | <input type="text"/> | 5×8 |
| i. 9×4 | <input type="text"/> | 8×7 |
| k. 9×9 | <input type="text"/> | 8×7 |
| m. 8×0 | <input type="text"/> | 8×1 |
| o. 8×8 | <input type="text"/> | $8 + 8$ |
| q. 9×8 | <input type="text"/> | 10×9 |
| s. 8×10 | <input type="text"/> | 9×9 |
| u. 9×3 | <input type="text"/> | 3×9 |
| w. $8 + 8 + 8 + 8$ | <input type="text"/> | 8×8 |
| y. $7 + 11$ | <input type="text"/> | 9×2 |

- | | | |
|--------------------|----------------------|---------------|
| b. 9×7 | <input type="text"/> | 8×8 |
| d. $8 + 9$ | <input type="text"/> | 8×9 |
| f. 10×5 | <input type="text"/> | 5×10 |
| h. 9×6 | <input type="text"/> | 8×5 |
| j. 9×0 | <input type="text"/> | 8×0 |
| l. 9×4 | <input type="text"/> | 10×7 |
| n. 7×7 | <input type="text"/> | 8×6 |
| p. 9×0 | <input type="text"/> | $9 + 0$ |
| r. 10×4 | <input type="text"/> | 8×5 |
| t. 6×9 | <input type="text"/> | 7×7 |
| v. 9×6 | <input type="text"/> | 9×7 |
| x. $9 + 9 + 9 + 9$ | <input type="text"/> | 9×4 |
| z. $3 + 9$ | <input type="text"/> | 9×3 |

6 Choose the correct answer.

- a. $8 \times 5 =$ (3 \times 10 or 4 \times 10 or 6 \times 6 or 7 \times 9)
- b. $9 \times 6 >$ (54 or 72 or 43 or 90)
- c. $8 \times 7 <$ (8 \times 3 or 4 \times 10 or 9 \times 5 or 6 \times 10)
- d. $5 \times 10 =$ (10 + 10 + 10 or 10 + 10 + 10 + 10 or 10 + 10 + 10 + 10 + 10 or 10 + 10)
- e. $9 \times 5 =$ (54 or 45 or 95 or 14)
- f. $8 \times 9 = 70 +$ (1 or 2 or 3 or 4)
- g. $1 \times 8 =$ + 8 (0 or 1 or 2 or 3)
- h. $8 \times 0 =$ (1 + 1 or 1 - 1 or 1 \times 1 or 8)
- i. $10 \times 9 =$ (19 or 10 + 9 or 91 or 90)
- j. All the following are equal to 40 except (8 \times 5 or 10 \times 4 or 10 + 30 or 0 \times 12)

- k. All the following are equal to 36 except
(9×4 or 6×6 or 3×10 or 3 tens and 6)
- l. Which of the following is equal to 90?
(9×9 or 9×10 or 9×5 or $9 + 9 + 9 + 9 + 9 + 9$)
- m. Which of the following is equal to zero?
(8×1 or 10×1 or 8×0 or 0×8)

7 Join the equal results.

- a. 10×4 b. 4×5 c. 2×5 d. 5×6 e. 10×5
1. 3×10 2. 5×10 3. 10×2 4. 8×5 5. 10×5

8 Put (✓) to the correct statement or (X) to the incorrect one.

- | | |
|--|-------|
| a. $8 \times 5 = 4 \times 10 = 40$ | () |
| b. $9 \times 7 < 8 \times 8$ | () |
| c. $8 + 8 + 8 + 8 + 8 + 8 = 8 \times 7 = 56$ | () |
| d. $9 \times 9 = 9 + 9$ | () |
| e. $10 \times 0 = 0 \times 8$ | () |
| f. $8 \times 8 > 10 \times 6$ | () |
| g. $9 \times 6 = 40 + 5$ | () |
| h. $10 + 10 + 10 = 10 \times 3 = 30$ | () |
| i. $8 \times 9 = 27$ | () |
| j. $8 \times 10 = 9 \times 9$ | () |
| k. $10 \times 9 < 8 \times 9$ | () |
| l. $7 + 7 + 7 + 7 = 9 \times 3$ | () |
| m. $9 \times 0 = 8 + 1$ | () |
| n. $72 = 9 \times 8 = 8 \times 9$ | () |

9 Use the chart.

a. Write three common multiples of 5 and 10 greater than 63 and smaller than 98

b. Write three common multiples of 5 and 10 greater than 99 and 125

c. Write three common multiples of 5 and 10 less than 100

10 Word problems.

a. A box of spread cheese has 8 pieces. What is the number of pieces in 9 boxes ?

The number of pieces in 9 boxes
= _____ = _____ pieces.



b. Waël bought ten books for 9 pounds each.

What is the price of all books ?

The price of all books = _____ = _____ pounds.



c. There are eight carriages in each toy train.

How many carriages are there in six trains ?

The number of carriages = _____ = _____ carriages.



Challenge

11 Heba says that 37 is a multiple of 10 because the digits 3 and 7 add to 10.

Do you agree ? Explain.



Summary of the Multiples up to 10

2

2	×	0	=	0
2	×	1	=	2
2	×	2	=	4
2	×	3	=	6
2	×	4	=	8
2	×	5	=	10
2	×	6	=	12
2	×	7	=	14
2	×	8	=	16
2	×	9	=	18
2	×	10	=	20

3

3	×	0	=	0
3	×	1	=	3
3	×	2	=	6
3	×	3	=	9
3	×	4	=	12
3	×	5	=	15
3	×	6	=	18
3	×	7	=	21
3	×	8	=	24
3	×	9	=	27
3	×	10	=	30

4

4	×	0	=	0
4	×	1	=	4
4	×	2	=	8
4	×	3	=	12
4	×	4	=	16
4	×	5	=	20
4	×	6	=	24
4	×	7	=	28
4	×	8	=	32
4	×	9	=	36
4	×	10	=	40

5

5	×	0	=	0
5	×	1	=	5
5	×	2	=	10
5	×	3	=	15
5	×	4	=	20
5	×	5	=	25
5	×	6	=	30
5	×	7	=	35
5	×	8	=	40
5	×	9	=	45
5	×	10	=	50

6

6	×	0	=	0
6	×	1	=	6
6	×	2	=	12
6	×	3	=	18
6	×	4	=	24
6	×	5	=	30
6	×	6	=	36
6	×	7	=	42
6	×	8	=	48
6	×	9	=	54
6	×	10	=	60

7

7	×	0	=	0
7	×	1	=	7
7	×	2	=	14
7	×	3	=	21
7	×	4	=	28
7	×	5	=	35
7	×	6	=	42
7	×	7	=	49
7	×	8	=	56
7	×	9	=	63
7	×	10	=	70

8

$8 \times 0 = 0$

$8 \times 1 = 8$

$8 \times 2 = 16$

$8 \times 3 = 24$

$8 \times 4 = 32$

$8 \times 5 = 40$

$8 \times 6 = 48$

$8 \times 7 = 56$

$8 \times 8 = 64$

$8 \times 9 = 72$

$8 \times 10 = 80$

9

$9 \times 0 = 0$

$9 \times 1 = 9$

$9 \times 2 = 18$

$9 \times 3 = 27$

$9 \times 4 = 36$

$9 \times 5 = 45$

$9 \times 6 = 54$

$9 \times 7 = 63$

$9 \times 8 = 72$

$9 \times 9 = 81$

$9 \times 10 = 90$

10

$10 \times 0 = 0$

$10 \times 1 = 10$

$10 \times 2 = 20$

$10 \times 3 = 30$

$10 \times 4 = 40$

$10 \times 5 = 50$

$10 \times 6 = 60$

$10 \times 7 = 70$

$10 \times 8 = 80$

$10 \times 9 = 90$

$10 \times 10 = 100$

Remember

Any number multiplied by 1 equals the same number.

$1 \times 2 = 2$

$1 \times 3 = 3$

$1 \times 4 = 4$



Any number multiplied by 0 equals 0.

$0 \times 8 = 0$

$0 \times 9 = 0$

$0 \times 10 = 0$

Review on the Multiples



1 Find the result.

1. $4 \times 7 =$ _____

2. $9 \times 5 =$ _____

3. $7 \times 9 =$ _____

4. $8 \times 8 =$ _____

5. $3 \times 8 =$ _____

6. $6 \times 5 =$ _____

7. $4 \times 9 =$ _____

8. $8 \times 6 =$ _____

9. $5 \times 8 =$ _____

10. $9 \times 8 =$ _____

11. $6 \times 4 =$ _____

12. $1 \times 6 =$ _____

13. $9 \times 0 =$ _____

14. $6 \times 8 =$ _____

15. $9 \times 9 =$ _____

16. $7 \times 5 =$ _____

17. $3 \times 6 =$ _____

18. $8 \times 7 =$ _____

19. $6 \times 9 =$ _____

20. $5 \times 6 =$ _____

21. $9 \times 7 =$ _____

22. $6 \times 7 =$ _____

23. $2 \times 8 =$ _____

24. $10 \times 5 =$ _____

25. $4 \times 8 =$ _____

26. $5 \times 9 =$ _____

27. $7 \times 7 =$ _____

28. $10 \times 9 =$ _____

29. $7 \times 8 =$ _____

30. $9 \times 6 =$ _____

31. $0 \times 8 =$ _____

32. $5 \times 7 =$ _____

33. $6 \times 6 =$ _____

34. $8 \times 9 =$ _____

35. $7 \times 4 =$ _____

36. $1 \times 3 =$ _____

37. $4 \times 6 =$ _____

38. $3 \times 7 =$ _____

39. $9 \times 4 =$ _____

40. $5 \times 5 =$ _____

41. $10 \times 7 =$ _____

42. $10 \times 3 =$ _____



2 Find the result.

1. $\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$ 2. $\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$ 3. $\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$ 4. $\begin{array}{r} 6 \\ \times 1 \\ \hline \end{array}$ 5. $\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$ 6. $\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$

7. $\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$ 8. $\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$ 9. $\begin{array}{r} 6 \\ \times 5 \\ \hline \end{array}$ 10. $\begin{array}{r} 8 \\ \times 5 \\ \hline \end{array}$ 11. $\begin{array}{r} 5 \\ \times 10 \\ \hline \end{array}$ 12. $\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$

13. $\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$ 14. $\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$ 15. $\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$ 16. $\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$ 17. $\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$ 18. $\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$

19. $\begin{array}{r} 5 \\ \times 0 \\ \hline \end{array}$ 20. $\begin{array}{r} 8 \\ \times 4 \\ \hline \end{array}$ 21. $\begin{array}{r} 7 \\ \times 10 \\ \hline \end{array}$ 22. $\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$ 23. $\begin{array}{r} 8 \\ \times 10 \\ \hline \end{array}$ 24. $\begin{array}{r} 0 \\ \times 6 \\ \hline \end{array}$

25. $\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$ 26. $\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$ 27. $\begin{array}{r} 6 \\ \times 3 \\ \hline \end{array}$ 28. $\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$ 29. $\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$ 30. $\begin{array}{r} 6 \\ \times 4 \\ \hline \end{array}$

31. $\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$ 32. $\begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$ 33. $\begin{array}{r} 5 \\ \times 7 \\ \hline \end{array}$ 34. $\begin{array}{r} 0 \\ \times 7 \\ \hline \end{array}$ 35. $\begin{array}{r} 5 \\ \times 6 \\ \hline \end{array}$ 36. $\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$

37. $\begin{array}{r} 8 \\ \times 7 \\ \hline \end{array}$ 38. $\begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$ 39. $\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$ 40. $\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$ 41. $\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$ 42. $\begin{array}{r} 4 \\ \times 1 \\ \hline \end{array}$

Learn Factor pair

- Factor pair is a group of two numbers we multiply to get a product.
- Four friends Bassem, Mina, Hanan and Mariam. Each one has 6 identical cards and arranged them in rows of equal number of cards.



Bassem could arrange them in 1 row of 6 cards.



Factors
 1×6
Factor pair

Mina could arrange them in 2 rows of 3 cards.



Factors
 2×3
Factor pair

Hanan could arrange them in 3 rows of 2 cards.



Factors
 3×2
Factor pair

Mariam could arrange them in 6 rows of 1 card.



Factors
 6×1
Factor pair

So, the number 6 can be arranged in different ways into arrays and its factors are 1, 2, 3 and 6.

- 2 and 3 are factors of 6 (factor pair), and 6 is a common multiple of both 2 and 3.
- 1 and 6 also are factors of 6 (factor pair), and 6 is a common multiple of both 1 and 6.



Check



Write each factor pair and the factors of each number.

8

<input type="text"/>	\times	<input type="text"/>
<input type="text"/>	\times	<input type="text"/>

Factors are

14

<input type="text"/>	\times	<input type="text"/>
<input type="text"/>	\times	<input type="text"/>

Factors are

Notes for parents

- Help your child to know that 2 and 3 are factors of 6, and 6 is a common multiple of both 2 and 3.

1 Write each factor pair and the factors of each number.

Hint

You can use beans or buttons to make different arrays to find factor pairs

a.

16

— × —	— × —
— × —	— × —
— × —	

Factors are _____

b.

12

— × —	— × —
— × —	— × —
— × —	— × —

Factors are _____

c.

18

— × —	— × —
— × —	— × —
— × —	— × —

Factors are _____

d.

20

— × —	— × —
— × —	— × —
— × —	— × —

Factors are _____

e.

10

— × —	— × —
— × —	— × —

Factors are _____

f.

15

— × —	— × —
— × —	— × —

Factors are _____

g.

6

— × —	— × —
— × —	— × —

Factors are _____

h.

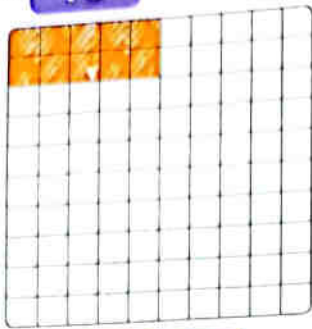
7

— × —	— × —
-------	-------

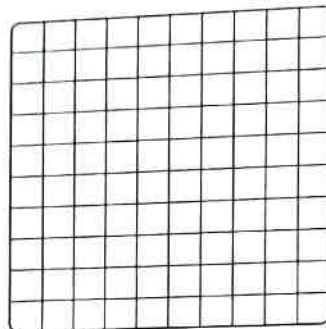
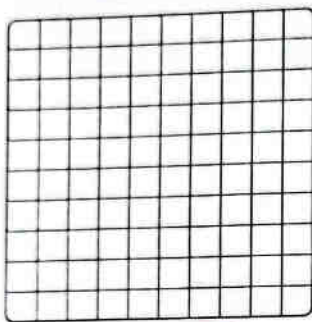
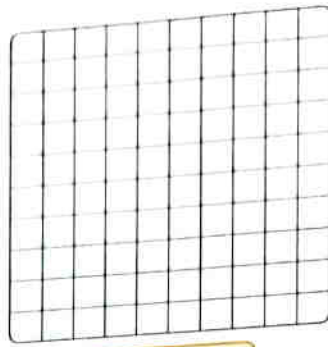
Factors are _____

2 How many different arrays can you make with the given number?
Color the grids to show your work.

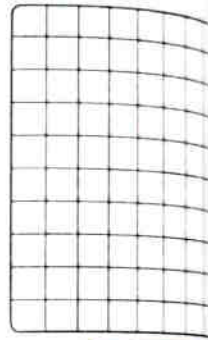
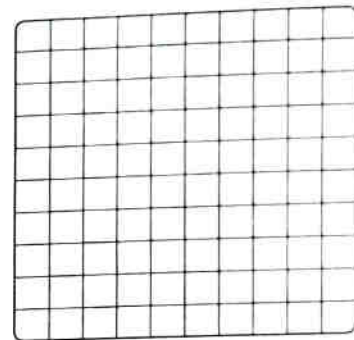
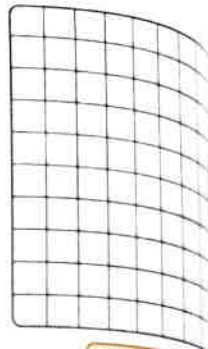
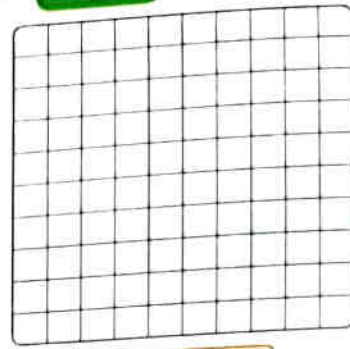
a. **10**



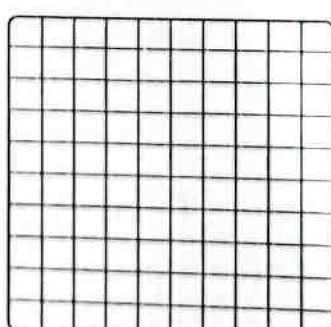
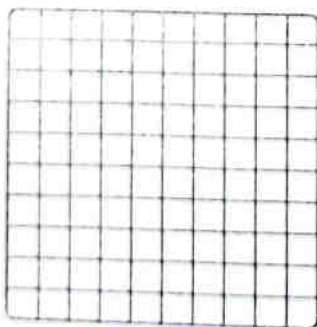
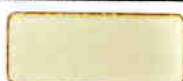
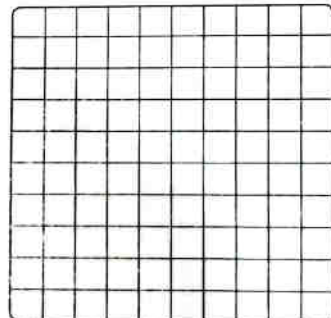
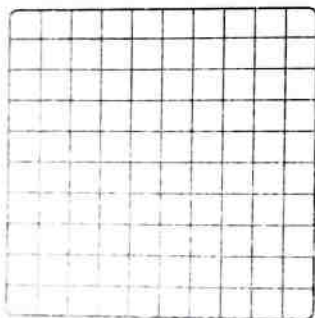
$$2 \times 5$$



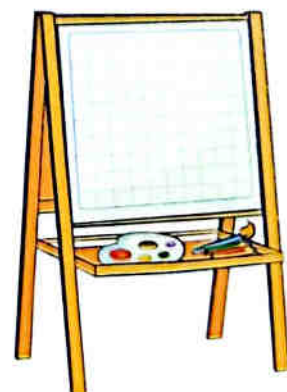
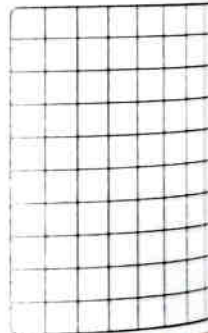
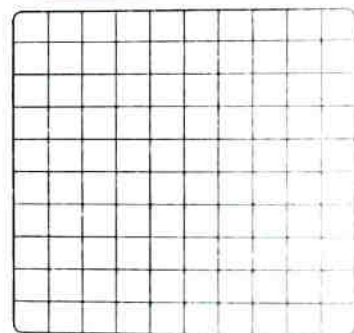
b. **8**



c. **12**



d. **15**



- e. The number 5 has _____ factors.
g. The number 16 has _____ factors.

- f. The number 18 has _____ factors.
h. The number 20 has _____ factors.

4 Complete using the given numbers. Use every number more than one time.

a.

1	2	7	14
_____	x	_____	= 14
_____	x	_____	= 14
_____	x	_____	= 14
_____	x	_____	= 14

b.

1	3	5	15
_____	x	_____	= 15
_____	x	_____	= 15
_____	x	_____	= 15
_____	x	_____	= 15

c.

3	7	1	21
_____	x	_____	= 21
_____	x	_____	= 21
_____	x	_____	= 21
_____	x	_____	= 21

d.

1	8	16	2
_____	x	_____	= 16
_____	x	_____	= 16
_____	x	_____	= 16
_____	x	_____	= 16

Challenge

- 5** a. Which number does have one factor pair? _____
b. Write three numbers where the number of the factors of each is two.

_____, _____ and _____

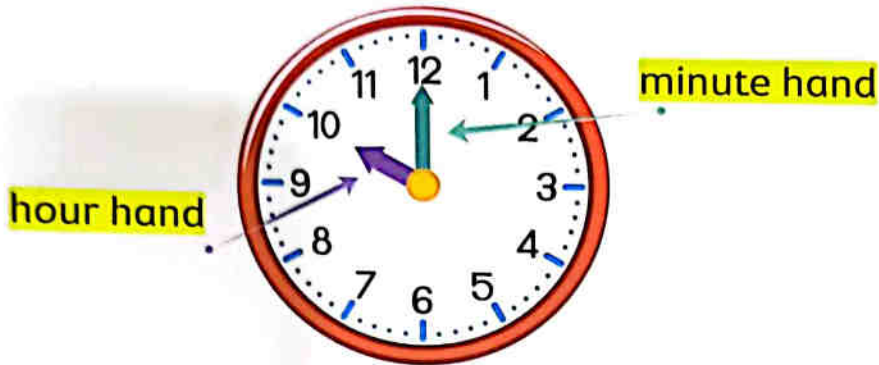
Place
a smiley
face



Remember

There are 60 minutes in 1 hour.

Analog clock



It is 10 o'clock

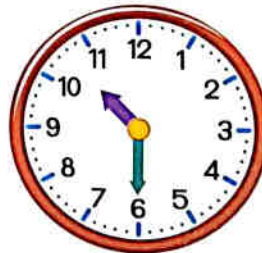
Digital clock



It is 10 o'clock



It is quarter past 10



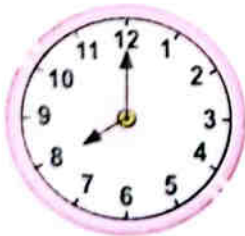
It is half past 10



It is quarter to 11

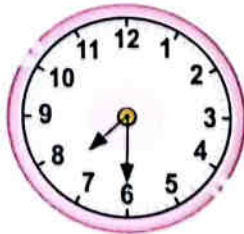


Write the time in two ways.



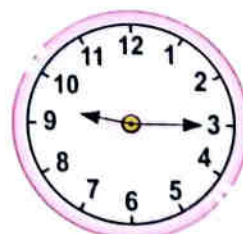
_____ : _____

It's _____



_____ : _____

It's _____



_____ : _____

It's _____



_____ : _____

It's _____

Learn 1 Time to 5 minutes

It takes **5 minutes** for the minute hand to move from one number to the next number on a clock face.

The time is **8 : 20**



Math tip
Skip count by **fives**
5, 10, 15, 20
(multiples of 5).
You count 4 times.



Where does the minute hand point at 8 : 20 ? The minute hand points at the **4**

Check



Join.



• 02:55



• 02:35



• 02:50



• 02:25



• 02:40

* Ask your child to count from 8 : 00 to 9 : 00 using 5-minutes intervals (8 : 00 , 8 : 05, 8 : 10, 8 : 15, and so on)

Learn 2 Elapsed time

Rasha started reading at 9:00

She finished reading at 9:40

For how long did she read ?

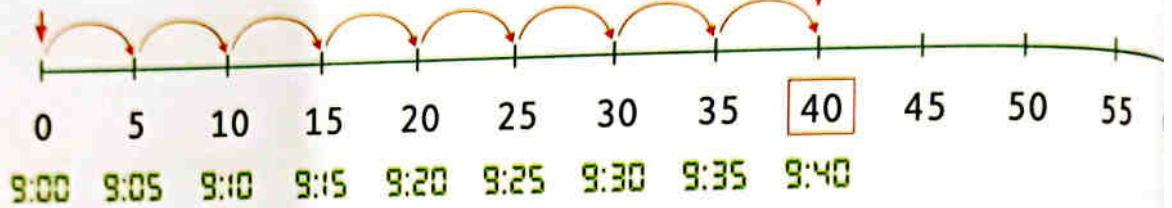


You can count by fives as follows :

She read for 40 minutes.

Start time

End time



The elapsed time from 9:00 to 9:40 is 40 minutes.

Check



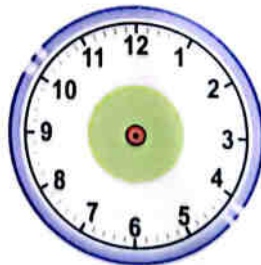
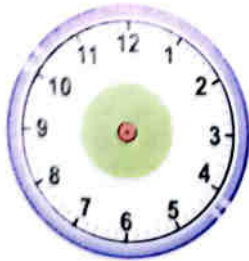
Youssef started swimming
at 5 : 00 and he finished
at 5 : 25



For how long did he swim ?

Start

Finish



He swam for _____ minutes.

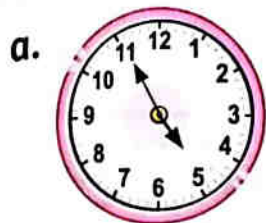
Math tip
Count by fives.



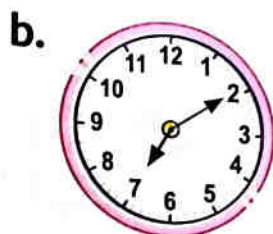
Notes for parents

- Point out the clock when it shows time to the hour. Ask your child to explain how a clock shows the an hour has gone by.

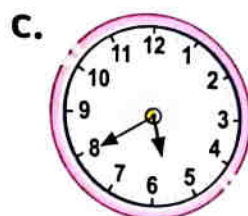
1 Write the time.



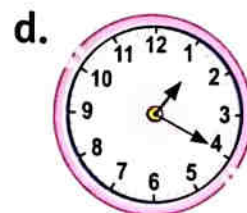
____ : ____



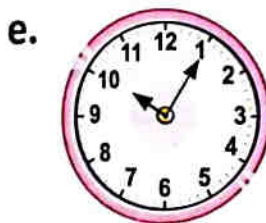
____ : ____



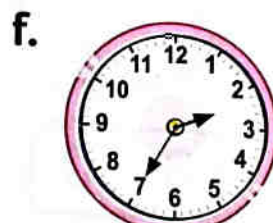
____ : ____



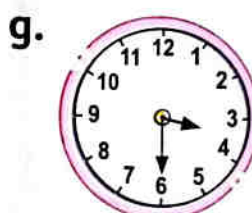
____ : ____



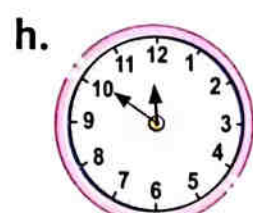
____ : ____



____ : ____

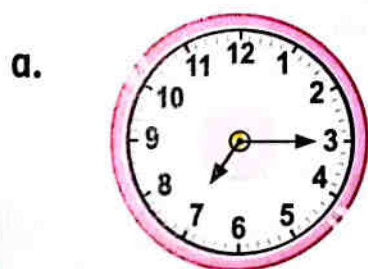


____ : ____



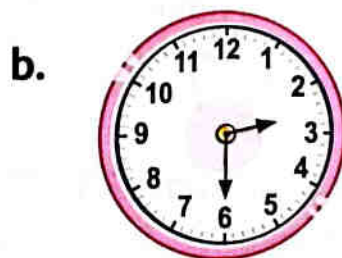
____ : ____

2 Write the time in two ways.



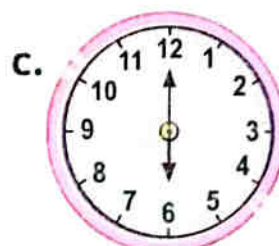
____ : ____

It's _____



____ : ____

It's _____



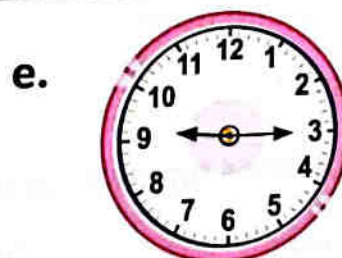
____ : ____

It's _____



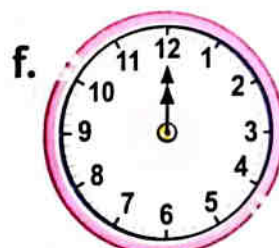
____ : ____

It's _____



____ : ____

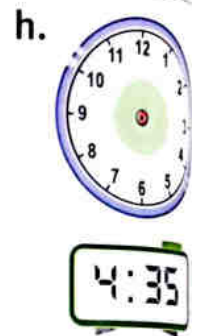
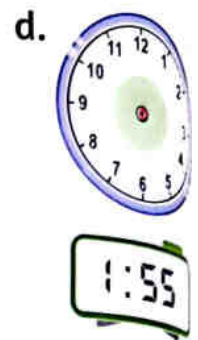
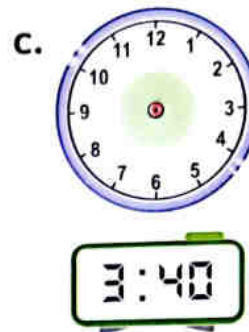
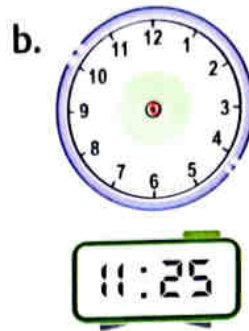
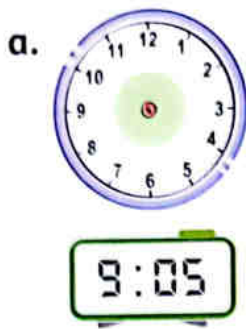
It's _____



____ : ____

It's _____

3 Draw the clock hands.



4 If the start time is 03 : 00, answer as the example.

Example

What number will the minute hand point to when 35 minutes have passed ? **7**

- What number will the minute hand point to when 10 minutes have passed ? _____
- What number will the minute hand point to when 25 minutes have passed ? _____
- What number will the minute hand point to when 40 minutes have passed ? _____
- What number will the minute hand point to when 5 minutes have passed ? _____
- What number will the minute hand point to when 60 minutes have passed ? _____



5 Answer the following.

a. A football match started at



The first round ended at



For how long did the first round take ?

The first round took _____ minutes.



b. Our English lesson started at



It finished at



For how long did English lesson take ?

English lesson took _____ minutes.



c. Habiba went to a party at 8:00

The party finished at



What is the time period of the party ?

The time period of the party _____ minutes.



d. John wakes up at 7 o'clock.

He gets ready at



How many minutes does he take to get ready ?

He takes _____ minutes.

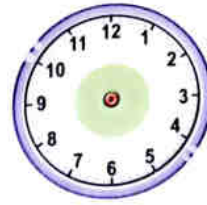


6 Draw the hands on the clock to show the time in each of the following

a. Yara started playing tennis at 6:00

She played for 35 minutes.

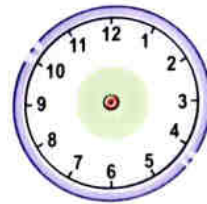
What time did she finish ?



b. Hassan left home at 7:00

It takes him 20 minutes to get to school.

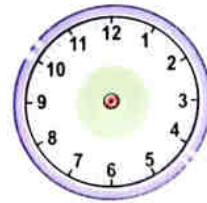
What time did he get to school ?



c. The train to Alexandria arrived at 9:00

It left the station 55 minutes earlier to get to Alexandria.

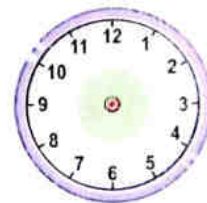
What time did the train leave the station ?



d. A T.V. show ended at 8:00

It lasted for half hour.

What time did the T.V. show start ?

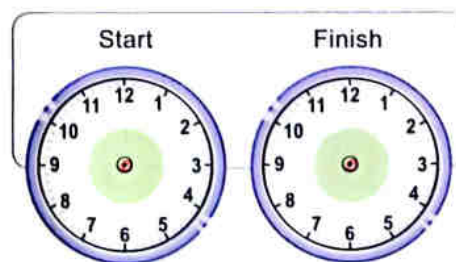


Challenge

7 Salma's piano lesson begins at 4:15

It lasts for 30 minutes.

At what time does her lesson end ?

 :


Place a smiley face

Learn What is the division?

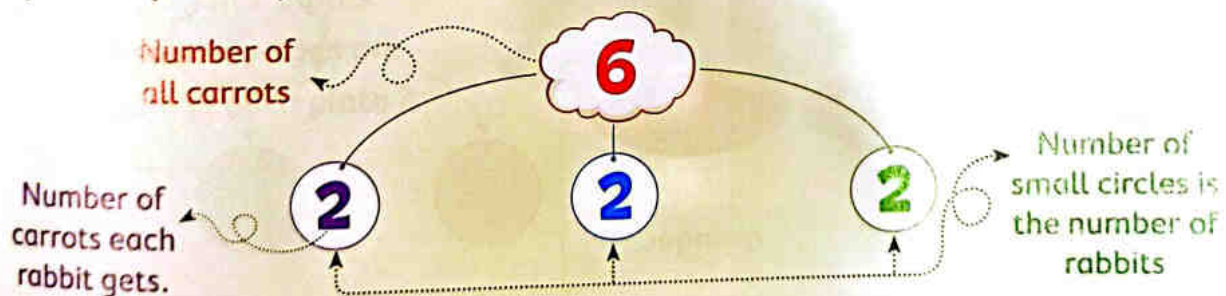
- Division is to separate some things in equal groups.
- To share things equally, you can **divide**.
- Hend has 6 carrots to feed the rabbits.
- There are 3 rabbits.
- How many carrots does each rabbit get ?



<p>Make 3 groups.</p>	<p>Draw one carrot in each group</p>	<p>Draw another carrot in each group.</p> <p>2 carrots in each group.</p>
------------------------------	---	---

So, each rabbit gets **2** carrots.

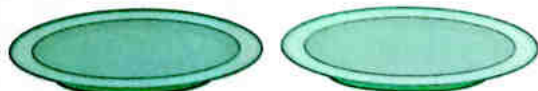
- The following model is called a **part - part - whole** to represent the sharing problem (Division).



Check



Draw to show 8 eggs divided among 2 plates.



Notes for parents

- Ask your child to use 10 objects to make equal groups.

Exercise 18

Division

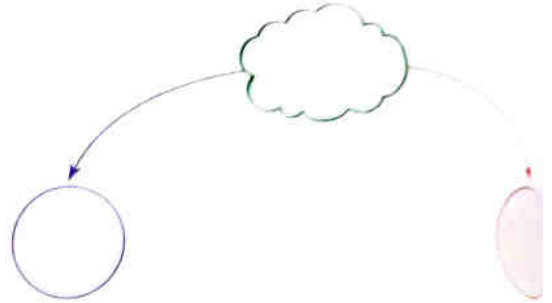
On Lessons 28 & 29

1 Draw to show equal groups. Fill in the part - part - whole model. Complete.

a. 9 coins divided among 3 money boxes.



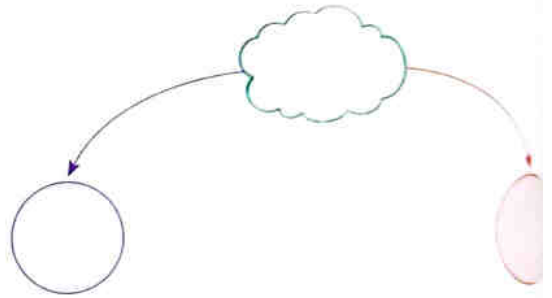
Each money box has _____ coins.



b. 6 pencils divided among 2 pencil cases.



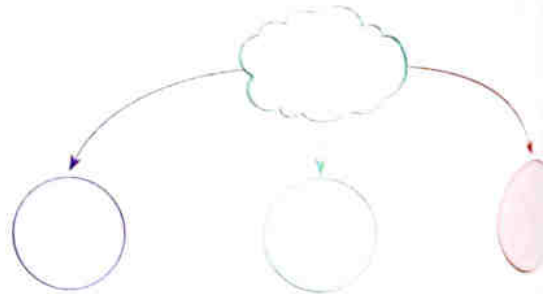
Each pencil case has _____ pencils.



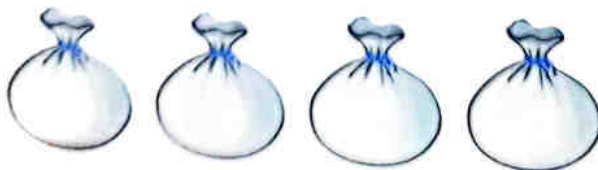
c. 12 oranges divided among 3 plates.



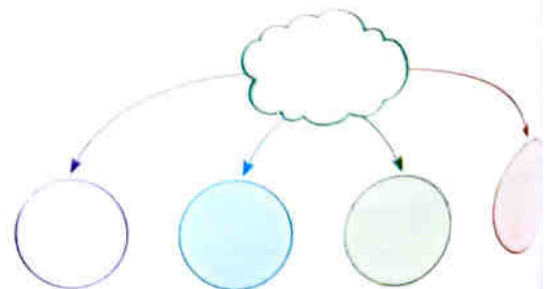
Each plate has _____ oranges.



d. 8 marbles divided among 4 bags.

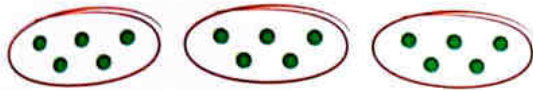


Each bag has _____ marbles.



2 Draw to show your work.
Write how many in each group. The first one is done for you.

a. Divide 15 into 3 equal groups.



5 in each group.

b. Divide 8 into 4 equal groups.

_____ in each group.

c. Divide 14 into 2 equal groups.

_____ in each group.

d. Divide 3 into 3 equal groups.

_____ in each group.

3 Solve the following problems.

You can draw a mathematical picture or use counters to help you.

a. Rania has 18 eggs and wants to put them equally in 3 plates. How many eggs are there in each plate?



b. Bassem has 28 stamps. He put an equal number of his stamps on each of 4 pages.



How many stamps are on each page?

Work area



c. Each bear wants to eat 5 fish.

There are 25 fish.

How many bears can be fed ?



d. A class has 20 pupils.

If they are divided into rows of 5 pupils each.

How many rows are there ?



e. Shady saw some

horses in a park

He counted 20 legs.

How many horses did Shady see ?



Challenge

4 Amgad has 13 lemons.

Can he put all of them in two boxes, each of them has an equal number of lemons ? Explain.

Place a smiley face

Lesson 30

- Using division symbol
- The relation between multiplication and division

Learn 1 Division symbol

- There are 12 sweets.
- You want to divide them among 3 groups and find the sweets number in each group.



- There are 4 sweets in each group.
- When you divided them in equal groups, you can express it by the division sentence.

What you say : 12 divided by 3 equals 4

What you write :

$$12 \div 3 = 4$$

This is a division sentence

Division symbol

Quotient : The answer of the division problem.

Check



Write the result of each of the following.

a. $16 \div 2 =$ _____

b. $20 \div 5 =$ _____

c. $24 \div 3 =$ _____

d. $10 \div 2 =$ _____

e. $28 \div 4 =$ _____

f. $50 \div 10 =$ _____

g. $24 \div 6 =$ _____

h. $64 \div 8 =$ _____

i. $42 \div 7 =$ _____

Notes for parents

- Tell your child that the answer of division is called "Quotient".

Learn 2 Relation between multiplication and division

Vocabulary

Fact family
It is a set of related multiplication and division number sentences.

- Nader drew 12 ✓s in two ways.

- He wrote two multiplication sentences about his picture.

$$3 \times 4 = 12 \quad \text{"Think: 3 groups of 4 is 12"}$$

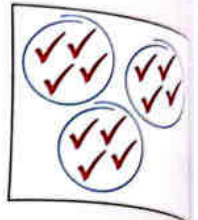
$$4 \times 3 = 12 \quad \text{"Think: 4 groups of 3 is 12"}$$

- He can also write two division sentences about his picture.

$$12 \div 3 = 4 \quad \text{"Think: 12 divided into 3 groups of 4"}$$

$$12 \div 4 = 3 \quad \text{"Think: 12 divided into 4 groups of 3"}$$

- These four number sentences form a **fact family** of the numbers 3, 4 and 12.



$$3 \times 4 = 12$$



$$4 \times 3 = 12$$

Example 1

Complete.

a. $15 \div \underline{\quad} = 5$

c. $6 \times \underline{\quad} = 30$

b. $\underline{\quad} \div 4 = 6$

d. $\underline{\quad} \times 2 = 18$

Solution

a. $15 \div \underline{3} = 5$ [Hint : $5 \times 3 = 15$]

b. $\underline{24} \div 4 = 6$ [Hint : $6 \times 4 = 24$]

c. $6 \times \underline{5} = 30$

d. $\underline{9} \times 2 = 18$

Notes for parents

- Remind your child of the commutative property of multiplication.

Example 2

Write the suitable sign "> , = or <".

a. $35 \div 7$ 5×7

c. $28 \div 4$ $4 + 4$

e. 2×3 $24 \div 4$

b. 4×2 $42 \div 6$

d. $10 \div 10$ 10×0

f. 4×5 10×2

Solution 

a. $35 \div 7$ 5×7
5 35

c. $28 \div 4$ $4 + 4$
7 8

e. 2×3 $24 \div 4$
6 6


b. 4×2 $42 \div 6$
8 7


d. $10 \div 10$ 10×0
1 0


f. 4×5 10×2
20 20


Check 


Join the equal answers.


a. $18 \div 3$ 


 $10 \div 5$

b. $16 \div 2$ 


 2×3

c. $8 \div 4$ 

 $4 \div 1$

d. $5 + 5$ 

 $4 + 4$

e. 1×4 

 $20 \div 2$

* Ask your child to tell you how to use arrays or draw pictures to solve the division problems.

1 Find the result.

a. $8 \div 2 =$ _____

d. $16 \div 4 =$ _____

g. $40 \div 10 =$ _____

j. $42 \div 6 =$ _____

m. $72 \div 8 =$ _____

p. $49 \div 7 =$ _____

s. $5 \div 5 =$ _____

v. $4 \div 1 =$ _____

y. $28 \div 4 =$ _____

b. $12 \div 6 =$ _____

e. $40 \div 5 =$ _____

h. $21 \div 7 =$ _____

k. $12 \div 3 =$ _____

n. $21 \div 7 =$ _____

q. $35 \div 5 =$ _____

t. $50 \div 5 =$ _____

w. $24 \div 4 =$ _____

z. $24 \div 3 =$ _____

c. $15 \div 3 =$ _____

f. $20 \div 2 =$ _____

i. $24 \div 4 =$ _____

l. $8 \div 1 =$ _____

o. $10 \div 10 =$ _____

r. $36 \div 6 =$ _____

u. $36 \div 4 =$ _____

x. $27 \div 3 =$ _____

2 Choose the correct answer.

a. $24 \div 3 =$ _____

b. $45 \div 5 =$ _____

c. $36 \div 4 =$ _____

d. $70 \div 7 =$ _____

e. $18 \div 6 =$ _____

f. $2 \div 2 =$ _____

(5 or 6 or 7 or 8)

(6 or 7 or 8 or 9)

(9 or 8 or 7 or 6)

(4 or 6 or 8 or 10)

(2 or 3 or 4 or 5)

(0 or 1 or 2 or 3)

- g. How many groups of 5 are in 35 ? (7 or 8 or 9 or 10)
- h. How many groups of 3 are in 15 ? (4 or 3 or 5 or 1)
- i. If 10 crayons divided among 5 boxes. Then, each box has _____ crayons.
(1 or 2 or 3 or 4)
- j. If 21 apples divided among 3 plates. Then, each plate has _____ apples.
(5 or 6 or 7 or 8)

3 put the suitable sign "> , = or <".

- | | | | | | |
|-----------------|----------------------|--------------|------------------|----------------------|-----------------|
| a. $32 \div 8$ | <input type="text"/> | $8 \div 2$ | b. $27 \div 3$ | <input type="text"/> | $3 + 3 + 3 + 3$ |
| c. $54 \div 6$ | <input type="text"/> | 0×9 | d. 6×1 | <input type="text"/> | $6 \div 1$ |
| e. 8×8 | <input type="text"/> | $8 \div 8$ | f. 4×10 | <input type="text"/> | $40 \div 5$ |
| g. 6×6 | <input type="text"/> | 4×9 | h. $25 \div 5$ | <input type="text"/> | $40 \div 5$ |

4 Put (✓) to the correct statement or (X) to the incorrect one.

- | | | | |
|----------------------------|-----|----------------------------|-----|
| a. $15 \div 3 = 5$ | () | b. $28 \div 4 = 6$ | () |
| c. $7 \div 7 = 7$ | () | d. $8 \div 1 = 8$ | () |
| e. $24 \div 4 = 24 \div 8$ | () | f. $12 \div 4 = 24 \div 8$ | () |
| g. $8 \div 8 = 5 \div 5$ | () | h. $36 \div 4 > 40 \div 4$ | () |
| i. $6 \div 3 > 2$ | () | j. $10 \div 5 < 2$ | () |
- k. If Sara has 20 lemons and she wants to put them equally in 5 bags.
Then, there are 4 lemons in each bag. ()
- l. If A class has 20 pupils and they are divided into rows of 5 pupils each.
Then, there are 5 pupils in each row. ()

5 Complete.

a. $4 \times \square = 12$
 $12 \div 4 = \square$

b. $2 \times \square = 14$
 $14 \div 2 = \square$

c. $3 \times \square = 27$
 $27 \div 3 = \square$

d. $7 \times \square = 21$
 $21 \div 7 = \square$

e. $6 \times \square = 54$
 $54 \div 6 = \square$

f. $\square \times 4 = 32$
 $32 \div 4 = \square$

6 Find the missing number.

a. $\square \div 3 = 4$

b. $\square \div 6 = 5$

c. $\square \div 5 = 3$

d. $7 \times \square = 28$

e. $\square \times 8 = 64$

f. $2 \times \square = 18$

g. $30 \div \square = 6$

h. $56 \div \square = 8$

i. $9 \div \square = 1$

Write the fact family for each set of numbers. The first one is done for you

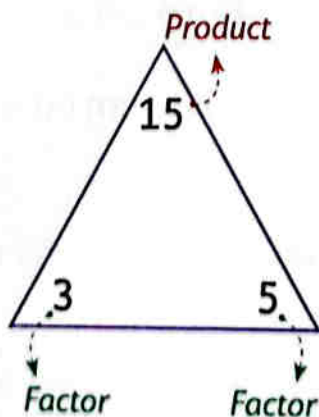
a.

$3 \times 5 = 15$

$5 \times 3 = 15$

$15 \div 3 = 5$

$15 \div 5 = 3$



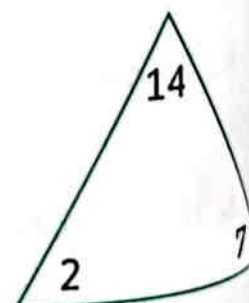
b.

$\square \times \square = \square$

$\square \times \square = \square$

$\square \div \square = \square$

$\square \div \square = \square$



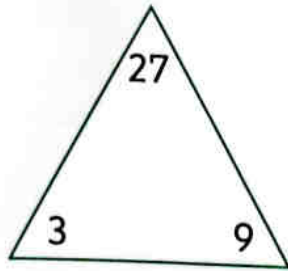
c.

$$\times =$$

$$\times =$$

$$\div =$$

$$\div =$$



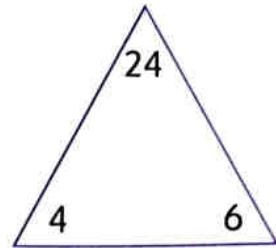
d.

$$\times =$$

$$\times =$$

$$\div =$$

$$\div =$$



8 Write the other facts from each family.

a. $4 \times 9 = 36$

b. $40 \div 5 = 8$

c. $6 \times 3 = 18$

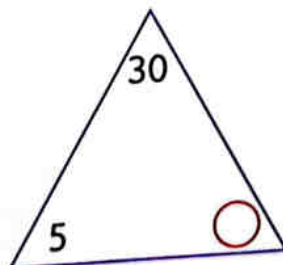
d. $2 \times 8 = 16$

e. $13 \div 1 = 13$

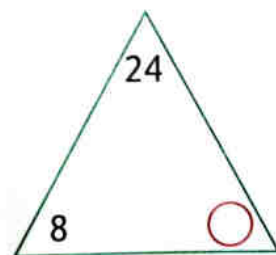
f. $14 \div 2 = 7$

9 Find the missing factor in each triangle below.
Then write the four numbers sentences that
go with the fact family.

a.



b.

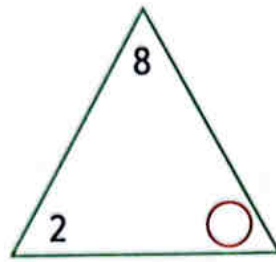


Math tip

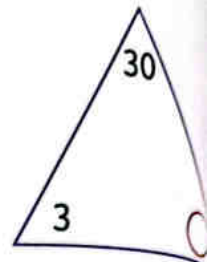
You may use
counters to help.



c.



d.



10 Choose which number sentence is not included in the same fact family.

a.

$$9 \times 4 = 36$$

☐ $4 \times 9 = 36$

☐ $36 \div 4 = 9$

☐ $36 \div 6 = 6$

☐ $36 \div 9 = 4$

b.

$$18 \div 3 = 6$$

☐ $3 \times 6 = 18$

☐ $18 \div 6 = 3$

☐ $6 \times 3 = 18$

☐ $9 \times 2 = 18$

c.

$$24 \div 6 = 4$$

☐ $4 \times 6 = 24$

☐ $24 \div 3 = 8$

☐ $6 \times 4 = 24$

☐ $24 \div 4 = 6$



Challenge

Choose the three numbers that can make a fact family.

Then write the four related multiplication and division sentences.

a.



b.





Assessment Chapter 3

1 Solve.

a. 2×5

b. 3×4

c. $14 \div 2$

d. $6 \div 3$

e. 6×5

f. $20 \div 5$

2 Write each factor pair and the factors of the number 18.

\times

\times

\times

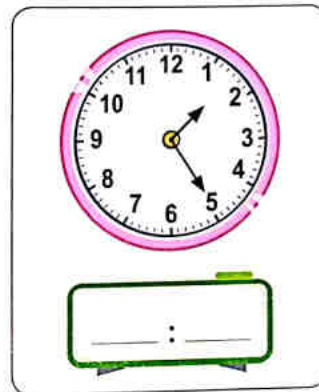
\times

\times

\times

• Factors are

3 Write the time.



4 Choose the correct answer.

a. is a common multiple of 2 and 3.

b. $8 \times 0 =$

c. is a multiple of 5.

d. $2 \times$ $= 12$

e. The minute hand will point to number when 50 minutes have passed.

(4 or 12 or 8 or 5)

(0 or 8 or 80 or 9)

(23 or 14 or 56 or 15)

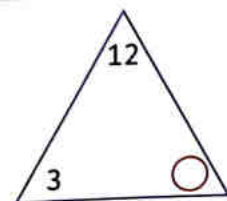
(10 or 8 or 14 or 6)

(5 or 10 or 8 or 4)

5 Ahmed bought 5 packs of ping pong balls. Each pack has 3 balls. How many balls are there?



6 Find the missing factor in the triangle. Then write the four sentences that show the fact family.



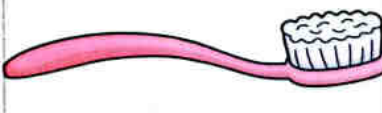
Accumulative Assessment

Till chapter 3

1 Put (✓) to the correct statement or (X) to the incorrect statement.

- a. The three numbers 4, 8 and 2 can form a fact family ()
- b. $7 + 7 + 7 + 7 + 7 + 7 + 7 = 7 \times 8$ ()
- c. $3 \times 9 = 9 + 3$ ()
- d. $7 \div 7 = 7 \div 1$ ()
- e. $1 \text{ m} = 100 \text{ cm}$ ()
- f. $150 \text{ tens} = 15 \text{ thousands}$ ()


2 Choose the correct answer.

- a. The minute hand will point to the number 4 when _____ minutes have passed. (5 or 10 or 15 or 20)
- b. 49 is a multiple of _____. (6 or 7 or 8 or 9)
- c. $7 \times 6 = ______ \times 7$ (1 or 5 or 6 or 7)
- d. 5 rows of 7 = _____. (12 or 2 or 57 or 35)
- e. $1 \text{ cm} = ______ \text{ mm}$ (1 or 10 or 100 or 1,000)
- f. The length of the figure  = _____ cm (3 or 4 or 5 or 6)

3 Match.

- | | | | | |
|-----------------|----------------|--------------------|---------------|---------------|
| a. 3×2 | b. $25 \div 5$ | c. $3 + 3 + 3 + 3$ | d. $8 \div 8$ | e. $2 \div 2$ |
| 2×6 | $36 \div 6$ | 1×5 | 2×1 | $7 \div 7$ |

4 Complete.

- a. $5 + 30,000 + 400 + 7,000 + 60 = ______$
- b. 2 groups of 9 = _____ + _____
- c. The tally marks  means _____



d. 1,000 , 1,100 , 1,200 , 1,300 , _____ (in the same pattern)

e. If $8 \times 9 = 72$ then , _____ $\div 8 = 9$

f. $36 \div 4 = 3 \times$ _____

5 Arrange the following numbers from least to greatest.

99,007 , 91,500 , 9,999 , 91,005 , 9,009

The order is : _____ , _____ , _____ , _____ , _____

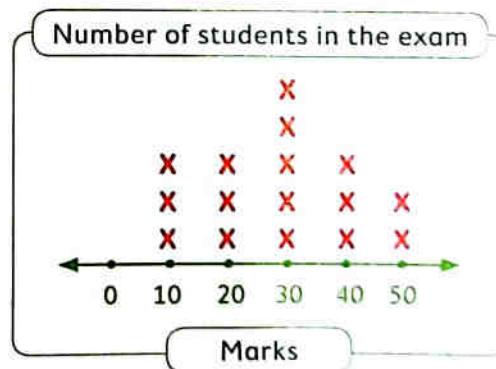
6 Write the other facts from the family $15 \div 3 = 5$

7 Ola bought 7 pens. If the price of the pens is 35 pounds.
Find the price of each pen.

The price of each pen = _____ = _____ pounds.

8 Use the line plot to answer the questions.

- a. How many students have 40 marks ? _____ students.
- b. How many students have more than 30 marks ? _____ students.
- c. How many students have this exam ? _____ students.



key
Each X stands for one student.



CHAPTER

4

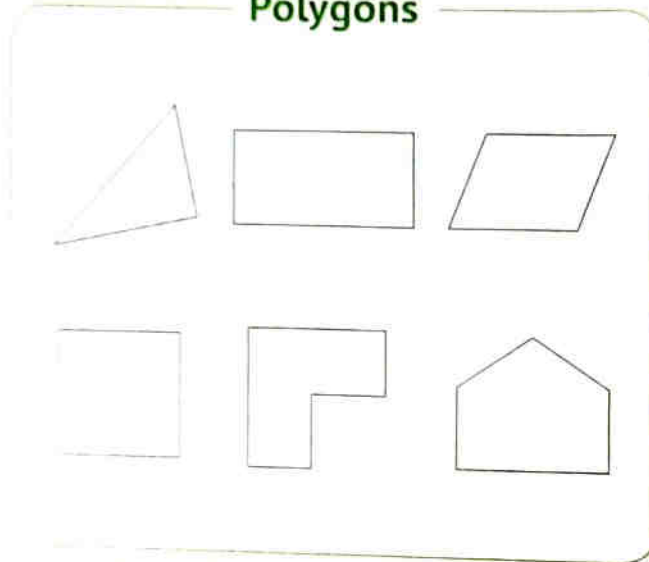


Learn 1 Polygons

- **Polygons** are closed two-dimensional figures.
- Closed figures are shapes do not have any gaps or curves between the lines that make it.

Examples :

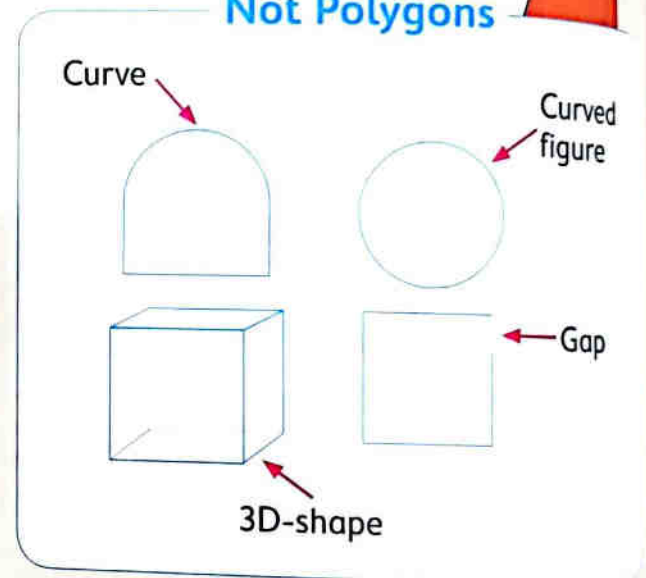
Polygons



Polygons does not have gaps or curves



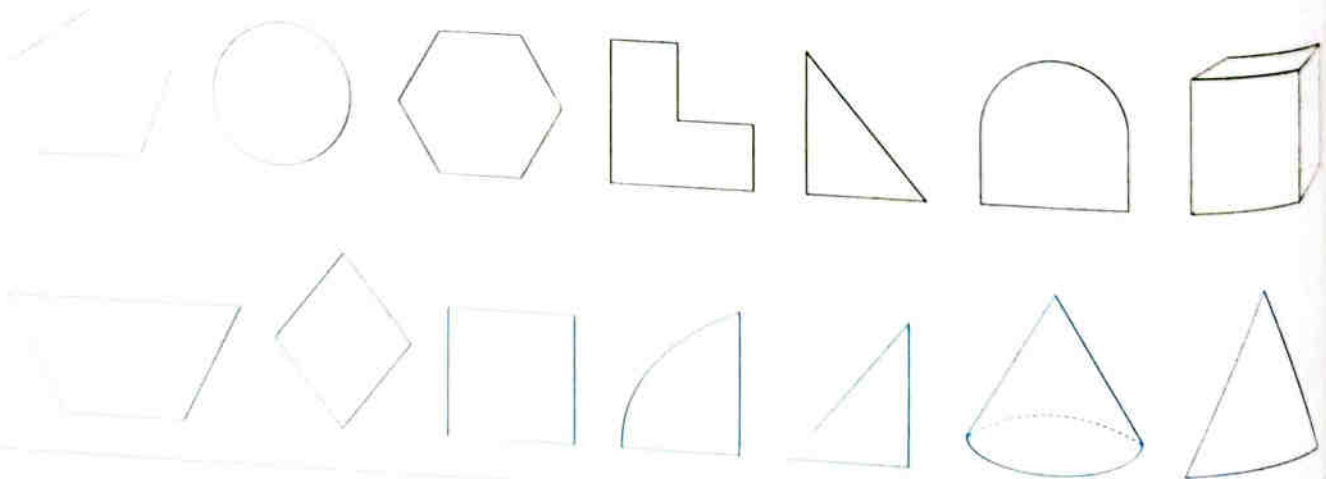
Not Polygons



Check



Are the following figures polygons ? Circle the polygons.
Explain why or why not.



Notes for parents

- Let your child recognize that three-dimensional shapes are not polygons.

Learn 2

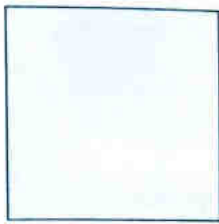
Identify the attributes of two-dimensional shapes

Triangle



3 sides
3 vertices

Square



4 sides
4 vertices

Rectangle



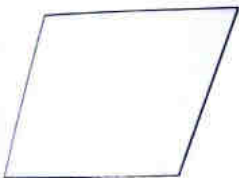
4 sides
4 vertices

Rhombus



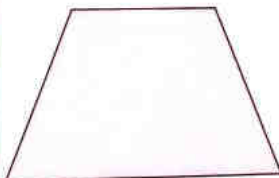
4 sides
4 vertices

Parallelogram



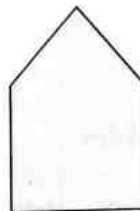
4 sides
4 vertices

Trapezium



4 sides
4 vertices

Pentagon



5 sides
5 vertices

Hexagon



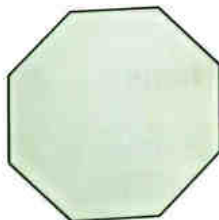
6 sides
6 vertices

Heptagon



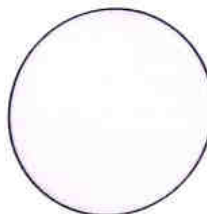
7 sides
7 vertices

Octagon



8 sides
8 vertices

Circle



0 sides
0 vertices

Note

The number of sides
= The number of vertices



* Ask your child to count the sides and vertices of each shape and decide if it is a polygon or not.

Check

Identify each 2D shape, and write the number of sides and vertices.

1.



Sides

Vertices

Name :

2.

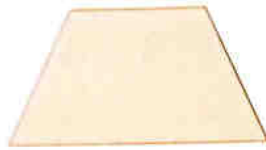


Sides

Vertices

Name :

3.



Sides

Vertices

Name :

4.



Sides

Vertices

Name :

5.

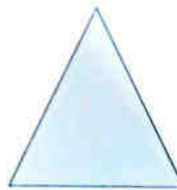


Sides

Vertices

Name :

6.

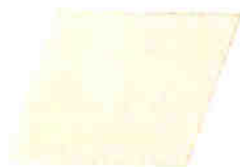


Sides

Vertices

Name :

7.

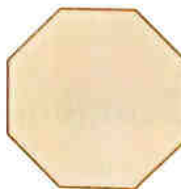


Sides

Vertices

Name :

8.

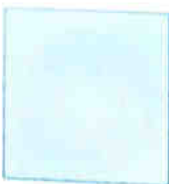


Sides

Vertices

Name :

9.

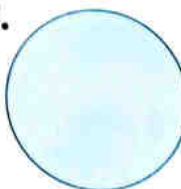


Sides

Vertices

Name :

10.



Sides

Vertices

Name :

Notes for parents

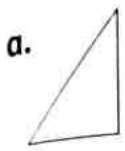
- Ask your child how many sides or vertices the octagon has. (8), is the octagon a polygon?

Exercise 20

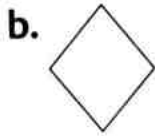
Polygons

On Lesson 31

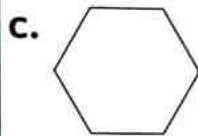
1 put (✓) if the shape is a polygon, and put (X) if it is not polygon.



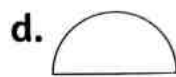
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()



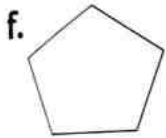
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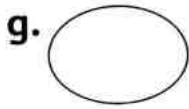
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()



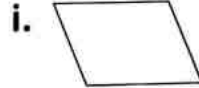
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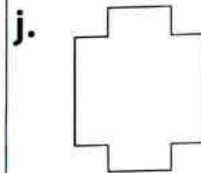
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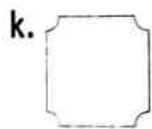
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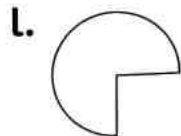
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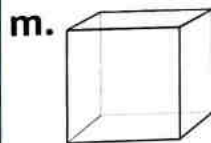
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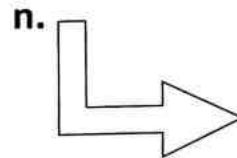
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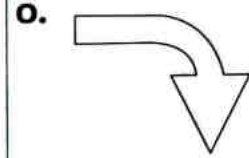
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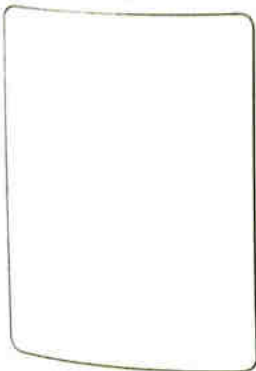
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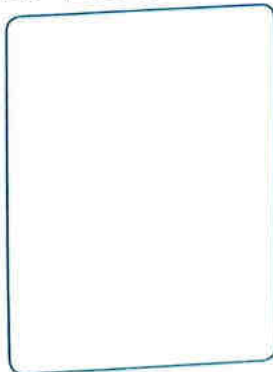
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2 Draw a polygon with.

a. 3 sides



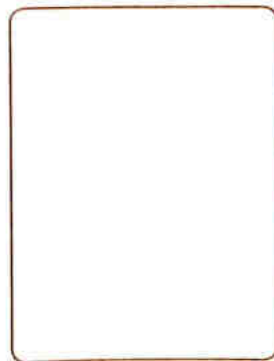
b. 4 vertices



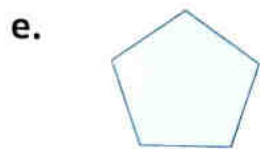
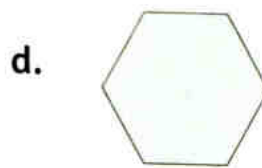
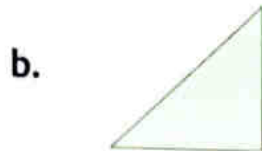
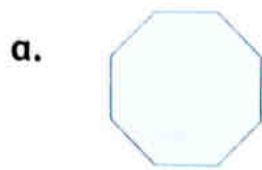
c. 5 sides



d. 6 vertices



3 Match.



Triangle

Parallelogram

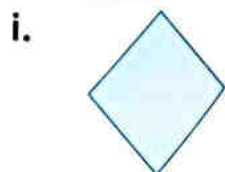
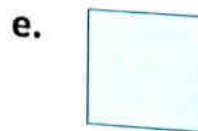
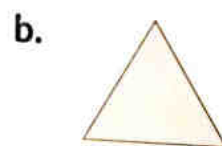
Octagon

Trapezium









Pentagon

Hexagon


4 Write the name of each figure.



5 Complete the table.
Check if the shape is a polygon or not.

Shape	Name	Attributes		Polygon
		Sides	Vertices	
	_____	_____	_____	
	_____	_____	_____	
	_____	_____	_____	
	_____	_____	_____	
	_____	_____	_____	
	_____	_____	_____	
	_____	_____	_____	
	_____	_____	_____	

6 Put (✓) to the correct statement or (X) to the incorrect statement.

- a. A polygon is an open two-dimensional figure. (
- b. The hexagon has 6 sides. (
- c. A circle is a polygon. (
- d. The parallelogram is a polygon. (
- e.  is called a triangle. (
- f. The pentagon has more than 5 sides. (
- g. In any polygon : the number of sides = the number of vertices. (

7 Complete.

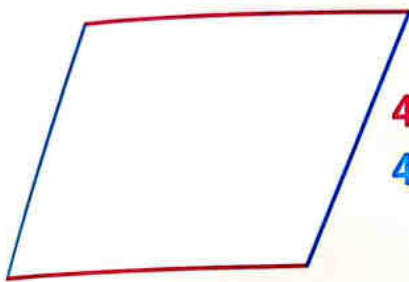
- a. The triangle has _____ sides and _____ vertices.
- b. The polygon which has _____ sides is called octagon.
- c. The pentagon has _____ vertices and _____ sides.
- d. The _____ has 6 sides.
- e. The _____ has 7 vertices.

Place
a smiley
face



Learn 1 Quadrilaterals

- **Quadrilaterals** are polygons with **4** straight sides and **4** vertices.
- A **parallelogram** is a quadrilateral shape (has four sides) that has each two opposite sides equal in length and parallel.

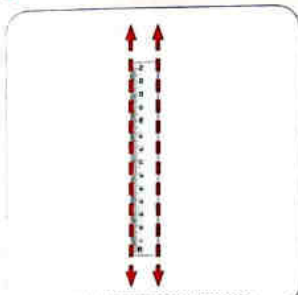


4 Vertices
4 Sides

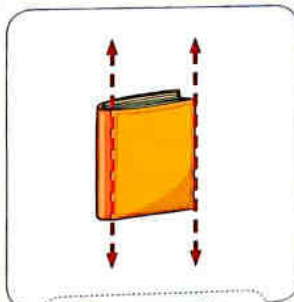
The blue lines are equal in length and parallel to each other and the red lines are equal in length and parallel to each other.



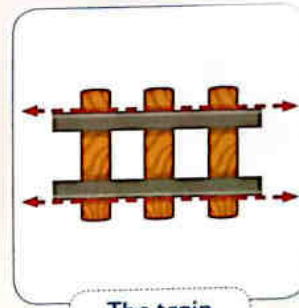
Examples for parallel lines :



The opposite edges of a ruler



The opposite edges of a book



The train tracks

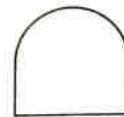
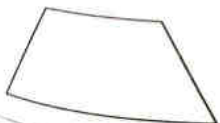
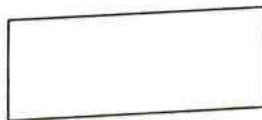
Parallel lines can go on forever and never intersect.

Check



Color the parallelogram of each.
Explain why or why not.

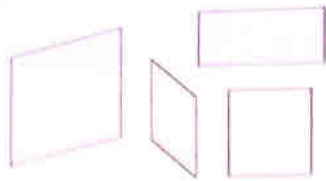
All rectangles, squares and rhombuses are also parallelograms.



Notes for parents


* Let your child recognize that rectangles, squares and rhombuses are also parallelograms.

Examples for quadrilaterals :




Parallelogram

- 2 pairs of parallel sides
- 2 pairs of equal sides
- 4 vertices



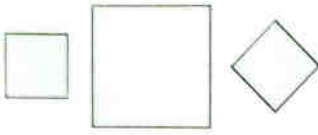
Rectangle

- 2 pairs of parallel sides
- 2 pairs of equal sides
- 4 similar vertices



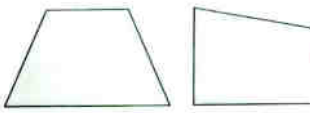
Rhombus

- 2 pairs of parallel sides
- 4 equal sides
- 4 vertices



Square

- 2 pairs of parallel sides
- 4 equal sides
- 4 similar vertices



Trapezium

- exactly 1 pair of parallel sides
- lengths of sides may not be the same
- 4 vertices

All quadrilaterals are polygons



Quadrilateral has :

- 4 sides
- 4 vertices

Check



Color the quadrilateral using the codes.

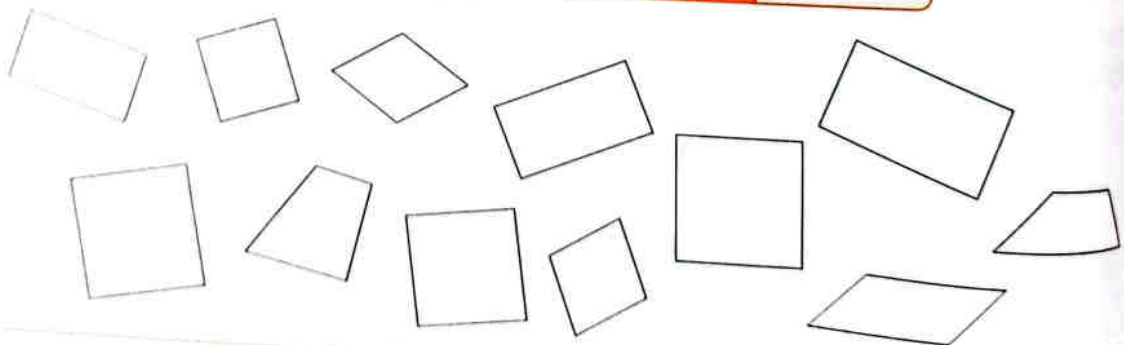
Square = red

Rhombus = green

Parallelogram = yellow

Rectangle = blue

Trapezium = orange



Notes for parents

- Ask your child to mention examples for quadrilaterals and draw more quadrilateral and define it.

Learn 2 Quadrilateral Venn diagrams

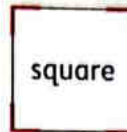
Vocabulary

Venn diagram
A Venn diagram shows how sets of things are related.

Look at the **Venn diagram** below. **Red** circle shows shapes that have 4 sides and 4 similar vertices. **Blue** circle shows shapes that have 4 equal sides.

The intersection area shows shapes that have 4 equal sides and 4 similar vertices.

Notes



square

4 similar vertices



rectangle

4 similar vertices



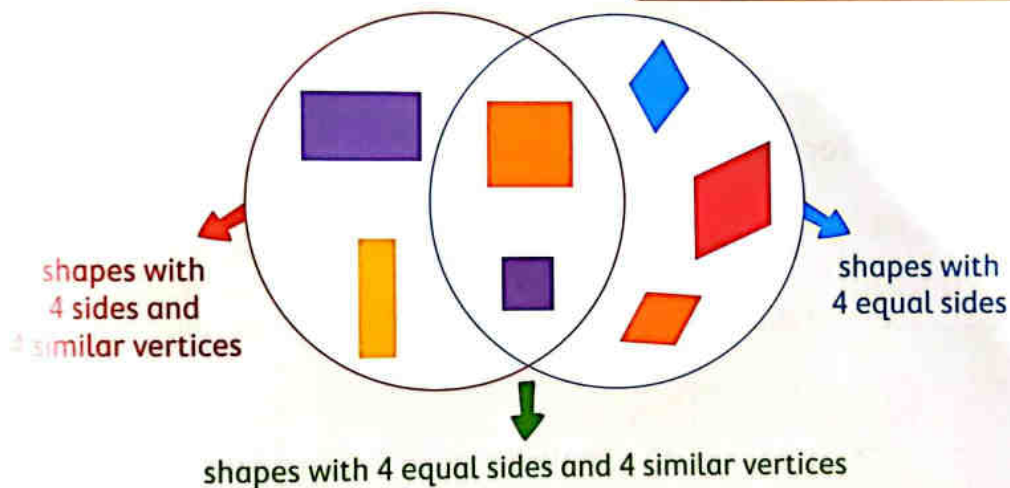
rhombus

4 vertices are not similar



parallelogram


4 vertices are not similar



Check



Use the previous Venn diagram to answer.

- 1 How many shapes with 4 sides and 4 similar vertices ? _____
- 2 How many shapes with 4 equal sides ? _____
- 3 How many shapes with 4 equal sides and 4 similar vertices ? _____
- 4 What types of quadrilateral are in both circles ? _____ , _____ , _____
- 5 Where in the Venn diagram would you put this shape  ? _____

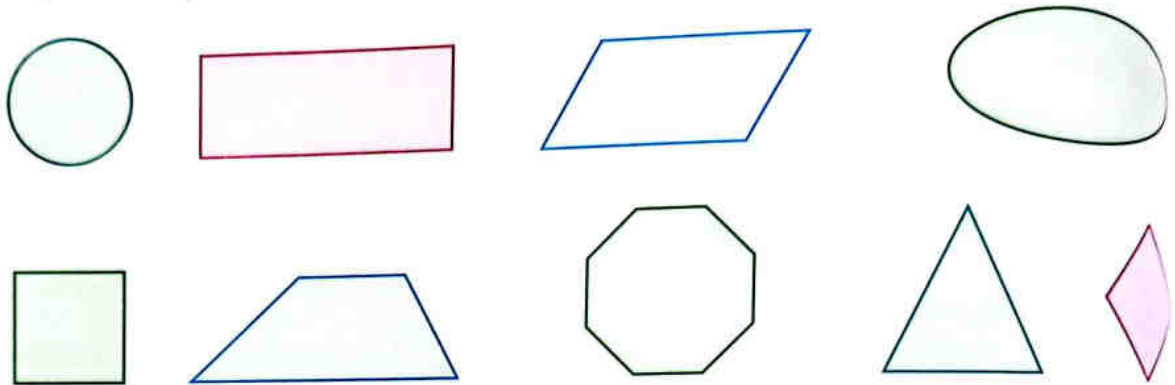
* Let your child know that Venn diagram is a way of sorting things and used in many ways and many figures.

Exercise 21

Quadrilaterals & Parallelogram

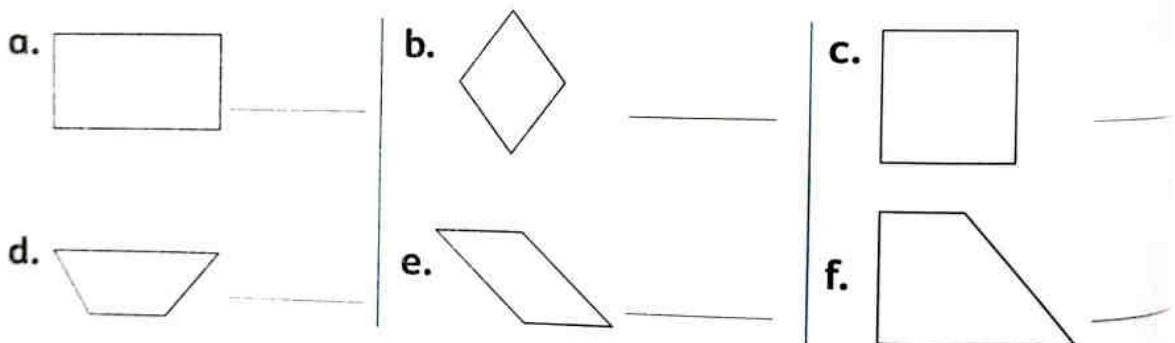
On Lessons 32 & 33

- 1** Cross out the shape that does not show a parallelogram. Explain why, write the examples that show a parallelogram.



• Examples of parallelogram : _____ , _____ , _____

- 2** Write a name for each quadrilateral.



- 3** Put (✓) to the correct statement or (X) to the incorrect statement.

- a. The quadrilateral is a polygon which has 4 sides. ()
- b. The parallelogram has exactly 1 pair of parallel sides. ()
- c. The square has 4 similar vertices. ()
- d. The rectangle's vertices are not similar. ()
- e. The rhombus has 2 pairs of parallel sides. ()
- f. The trapezium has more than 1 pair of parallel sides. ()



4 Choose the correct answer.

- a. The quadrilateral has _____ vertices. (1 or 2 or 3 or 4)
- b. The parallelogram has _____ pairs of equal sides. (1 or 2 or 3 or 4)
- c. The square has _____ equal sides. (1 or 2 or 3 or 4)
- d. The rectangle has _____ similar vertices. (1 or 2 or 3 or 4)
- e. The trapezium has exactly _____ pair of parallel sides. (1 or 2 or 3 or 4)
- f. The rhombus has _____ vertices. (1 or 2 or 3 or 4)

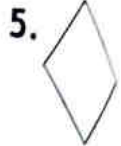
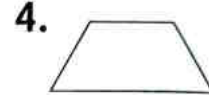
5 Complete. (write the name of the shape)

- a. The quadrilateral which has only 1 pair parallel sides is called _____
- b. The polygon which has 4 sides is called _____
- c. The quadrilateral which has 4 equal sides and 4 similar vertices is called _____
- d. The quadrilateral which has 4 equal sides and 4 not similar vertices is called _____
- e. The quadrilateral which has 4 similar vertices and 4 not equal sides is called _____

6 Match each property to all suitable quadrilaterals.

a. 2 pairs of parallel sides

b. 4 equal sides



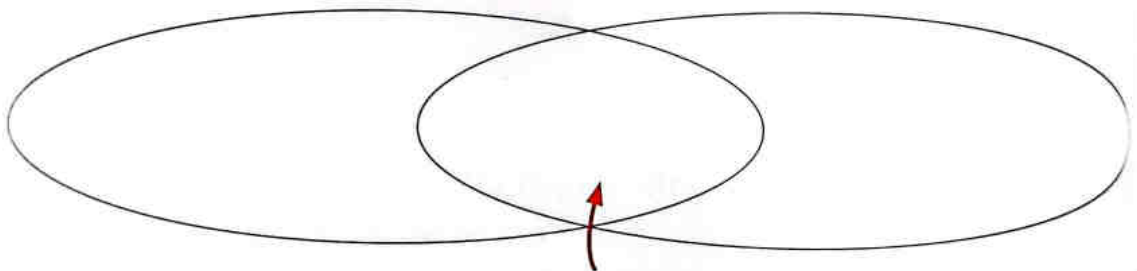
c. Exactly 1 pair of parallel sides

d. 4 vertices similar

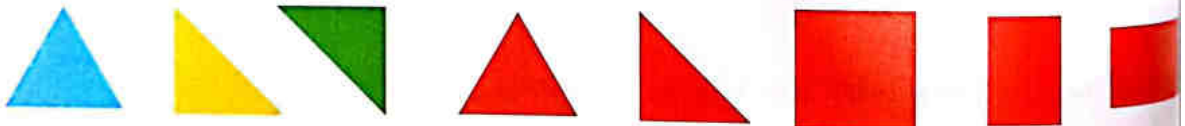
7 Draw the figures in the Venn diagram where they belong.

Figures with 3 sides

Red figures



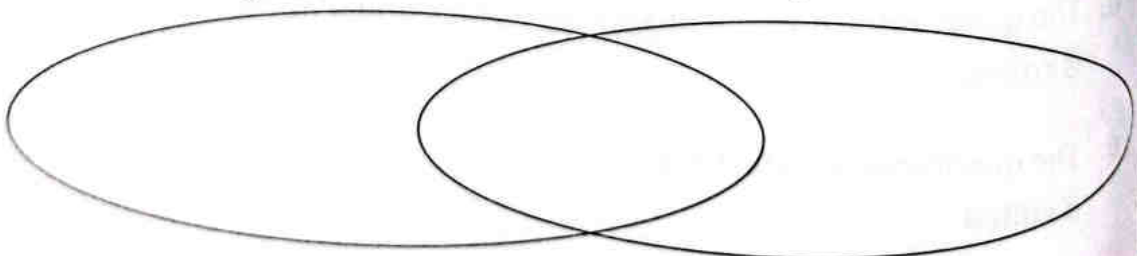
These figures have 3 sides and are red.



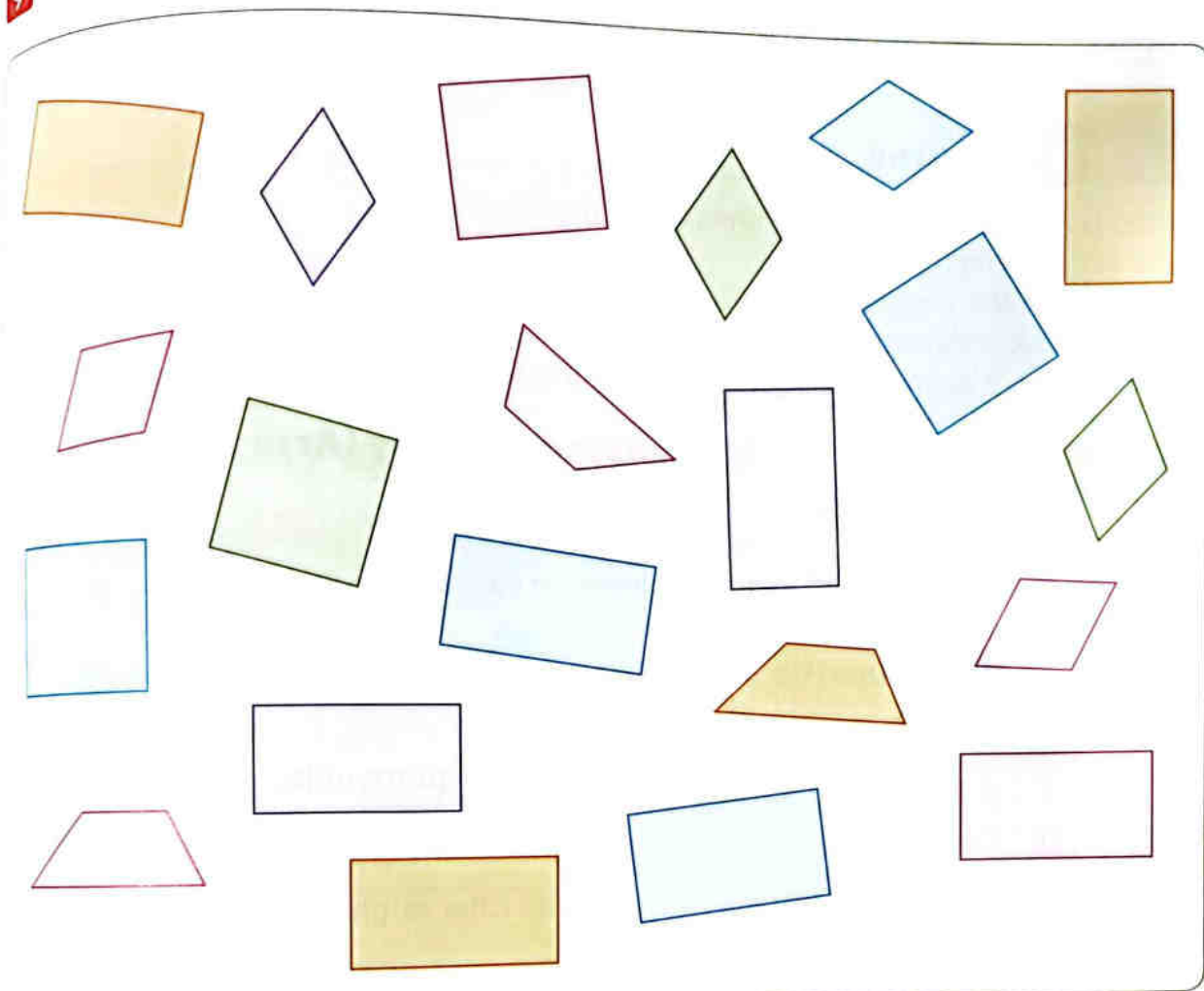
8 Draw the figures in the Venn diagram where they belong from the following

Blue figures

Figures with 4 vertices

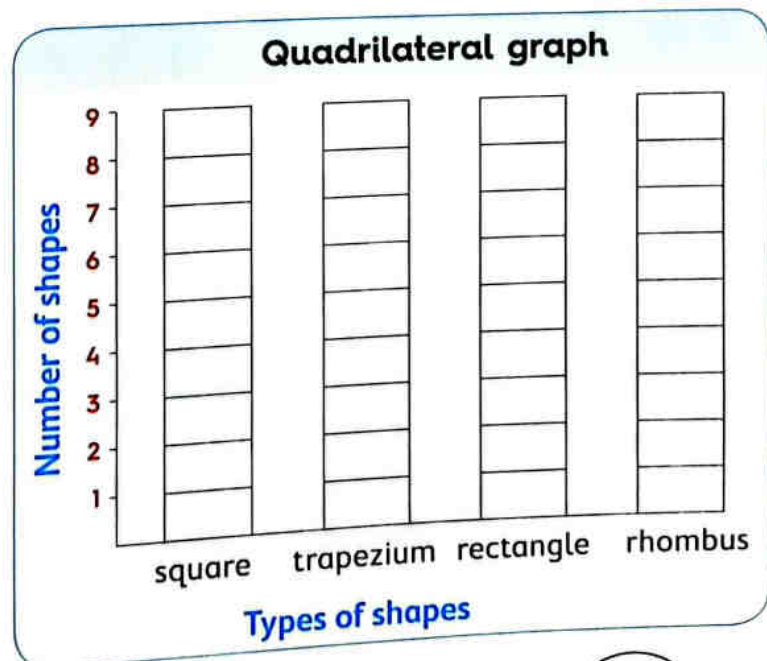


9 Use the following figures to fill in the bar graph below.



From the graph :

- Which quadrilateral is the most ?
- Which quadrilateral is the least ?
- How many parallelograms ?



Place
a smiley
face

Learn 1 Area

- Area is the number of square units needed to cover the surface of a figure.
- A square unit is a square with a side length of 1 unit and it is the unit used to measure area.
- You can count or multiply square units to find area.



Counting strategy

To find area of a rectangle, count the squares inside the rectangle.

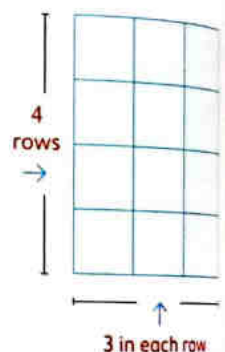
Area = 12 square units

1	2	3
4	5	6
7	8	9
10	11	12

Multiplying strategy (Array)

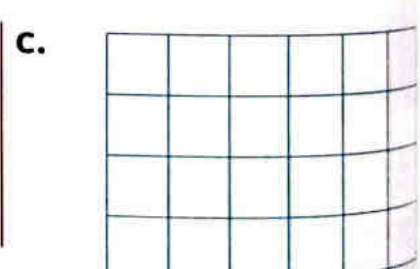
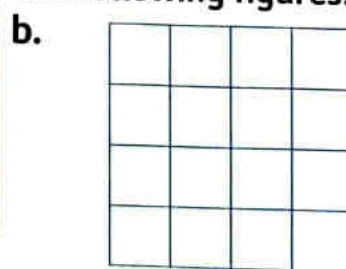
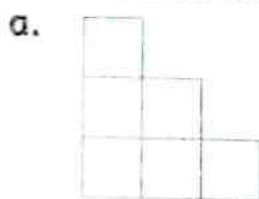
To find area of rectangle, multiply the number of rows by the number in each row.

$$\begin{array}{ccc} \text{number} & \text{number in} & \\ \text{of rows} & \text{each row} & \text{area} \\ \downarrow & \downarrow & \downarrow \\ 4 & \times 3 & = 12 \text{ square units} \end{array}$$

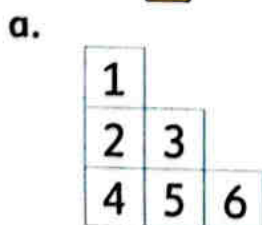


Example 1

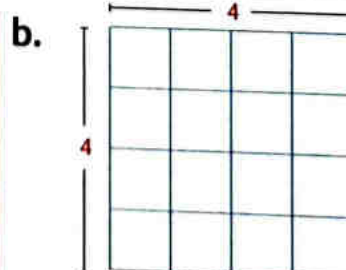
Find the area of each of the following figures.



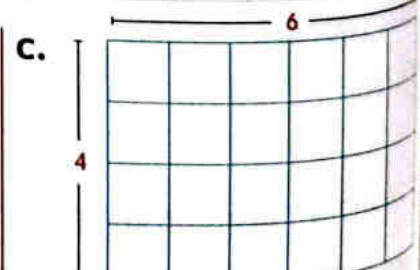
Solution ✓



Area = 6



Area = $4 \times 4 = 16$



Area = $4 \times 6 = 24$

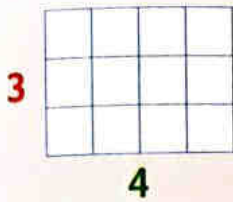
Notes for parents

- Let your child know that there are many strategies to find the area, let him/her discover another strategy.

Learn 2 Equal areas

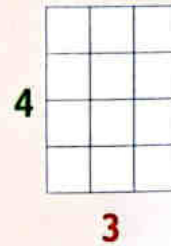
- There are more than one rectangle that look different but have the same area.

Commutative property of multiplication $3 \times 4 = 4 \times 3$



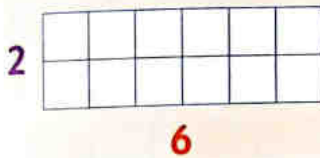
3 rows of 4

Area = $3 \times 4 = 12$ square units



4 rows of 3

Area = $4 \times 3 = 12$ square units



2 rows of 6

Area = $2 \times 6 = 12$ square units

Example 2

Draw on the grid rectangles with an area of 6 square units.

Solution

To draw rectangles with an area of 6 square units search for 2 numbers their product equals 6. You will find :

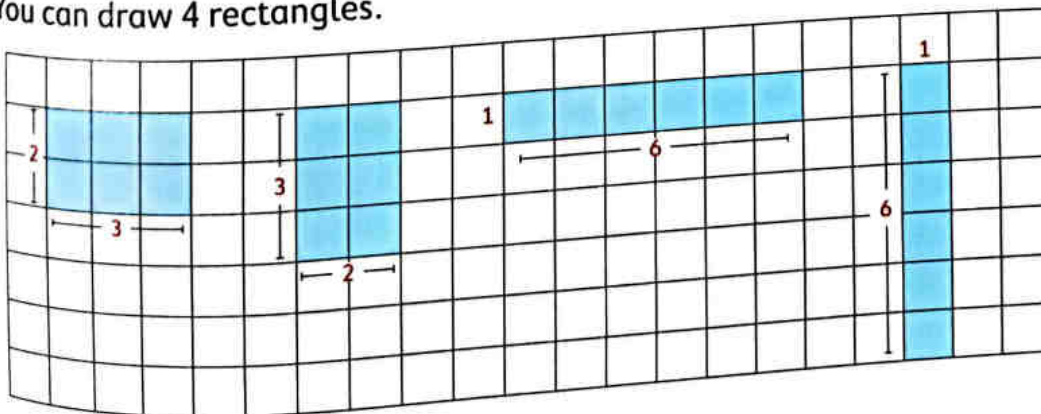
$2 \times 3 = 6$

$3 \times 2 = 6$

$1 \times 6 = 6$

$6 \times 1 = 6$

You can draw 4 rectangles.

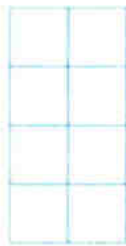


Tell your child that area is a part of our daily life it can be used in : purchasing a rug, creating a football field, painting a wall, or laying tiles on a floor.

Check

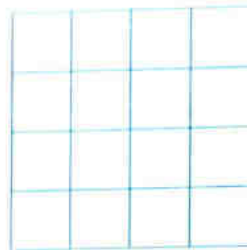


1. How many square units were used to make these figures ?



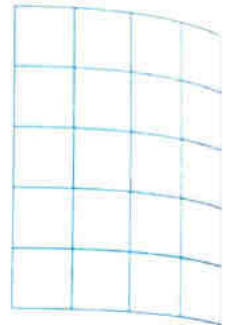
rows
in each row

Area = square units



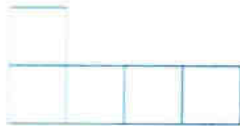
rows
in each row

Area = square units

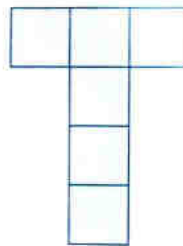


rows
in each row

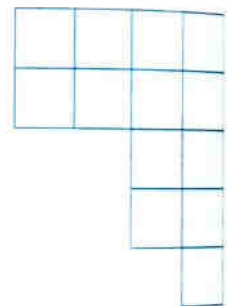
Area = square units



Area =

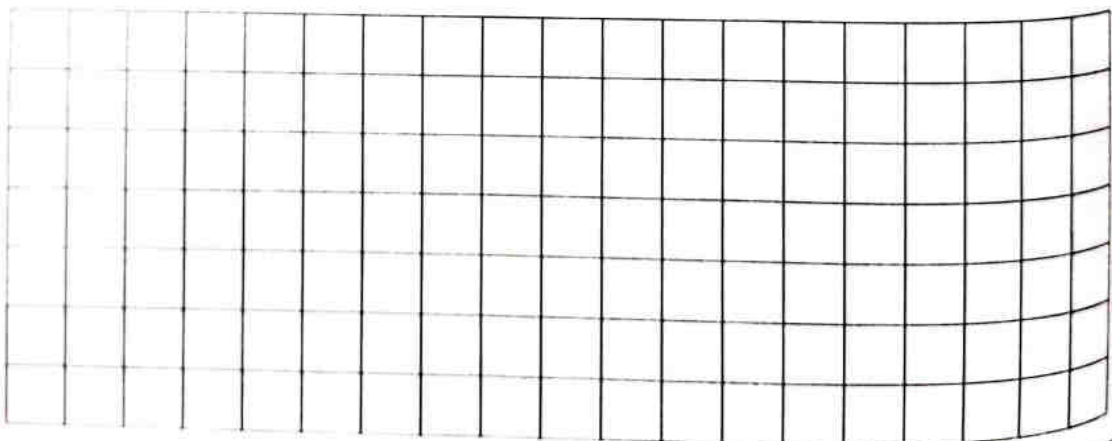


Area =



Area =

2. Draw more rectangles have the same area of 10 square units.



Notes for parents

- Help your child to calculate the area of each figure using different strategies such as : divide each figure into many parts and calculate the area of each part and combine them all or count the square one by one.

Learn 3 Area using dimensions

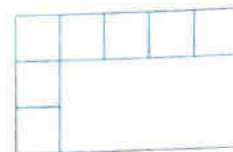
- Dimensions are calculated by the number of rows and the number of columns of the rectangle.
- To calculate the area of a rectangle or a square, you can use the **dimensions** of the figure.

For example :

Area of the rectangle = $3 \times 5 = 15$ square units



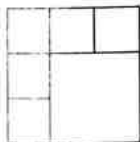
5 columns



Check



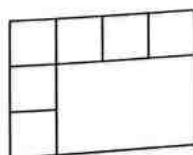
Determine the dimensions of each figure. Calculate the area of each figure.



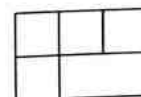
Area = $\text{---} \times \text{---}$
= --- square units



Area = $\text{---} \times \text{---}$
= --- square units



Area = $\text{---} \times \text{---}$
= --- square units



Area = $\text{---} \times \text{---}$
= --- square units

* Ask your child to determine the total area of a rectangle with dimensions 5 units and 4 units and a square with dimension of 5 units.


Exercise 22

Area

On Lessons 34 to 37

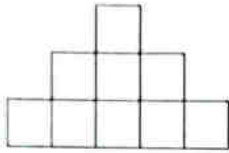
First : Exercises on calculating area

Remember

 = 1 square unit

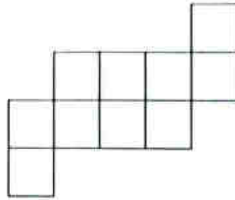
1 Calculate the area of each of the following.

a.



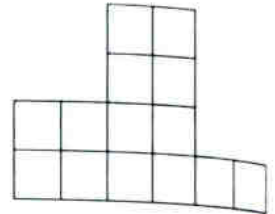
Area = 

b.



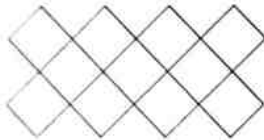
Area = 

c.



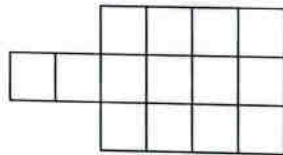
Area = 

d.



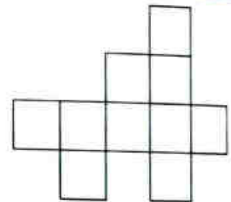
Area = 

e.



Area = 

f.



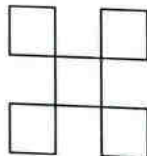
Area = 

g.



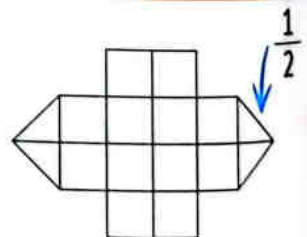
Area = 

h.



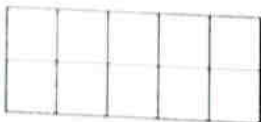
Area = 


i.



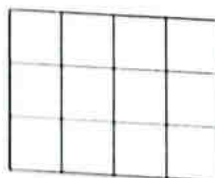
Area = 


j.



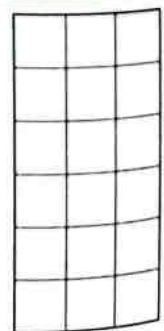
Area = \times 

k.



Area = \times 

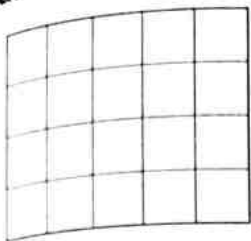
l.



Area = \times 

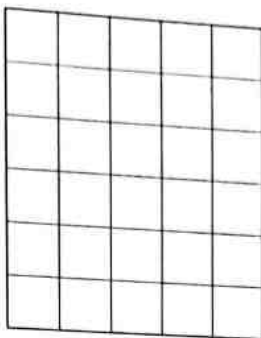
2 Calculate the area of each figure.

a.



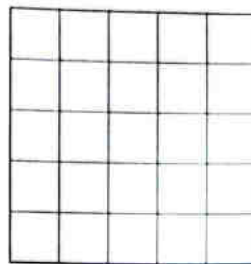
Area =

b.



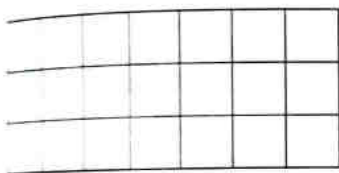
Area =

c.



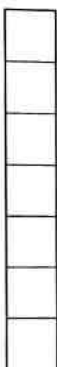
Area =

d.



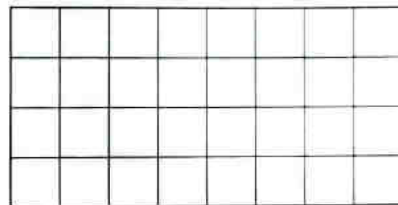
Area =

e.



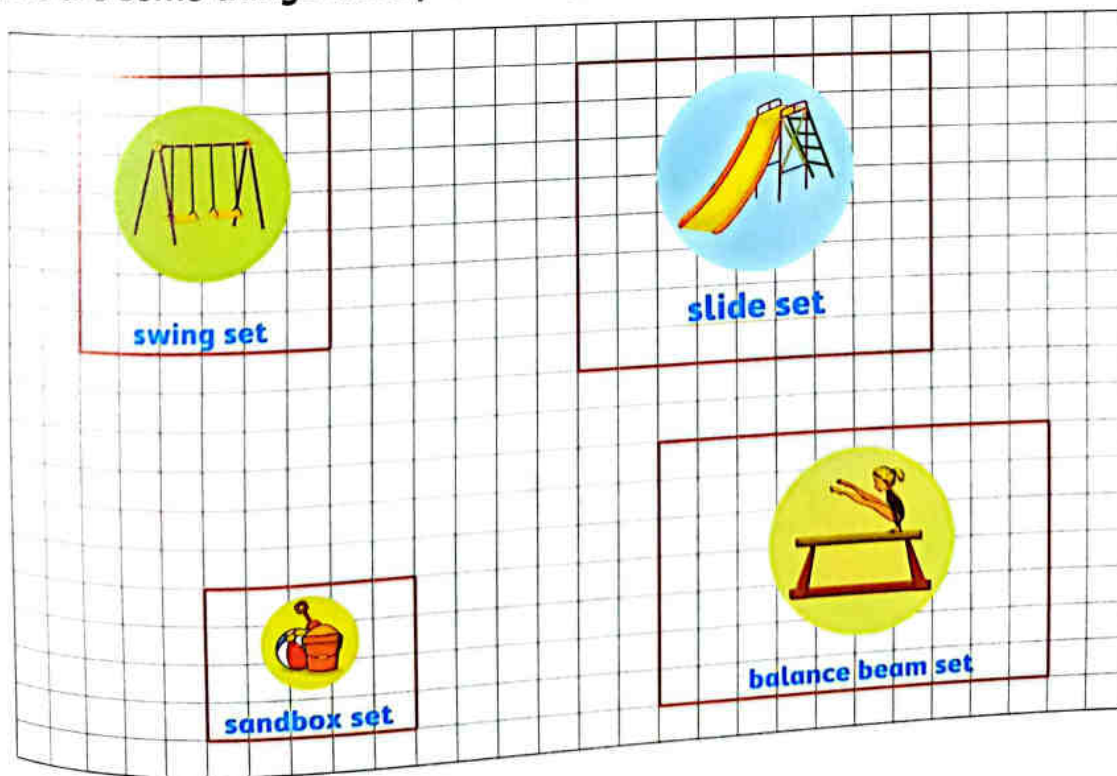
Area =

f.



Area =

3 Here are some things were placed in your playground. Complete the following.

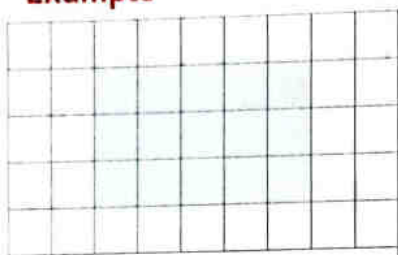


- a. The area of swing set = \times = square units.
 b. The area of slide set = \times = square units.
 c. The area of sandbox set = \times = square units.
 d. The area of balance beam set = \times = square units.

4 Use grid to draw a rectangle represents each of the following sentences and calculate the area as the example.

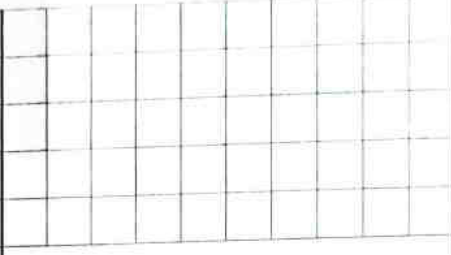
Example

a.



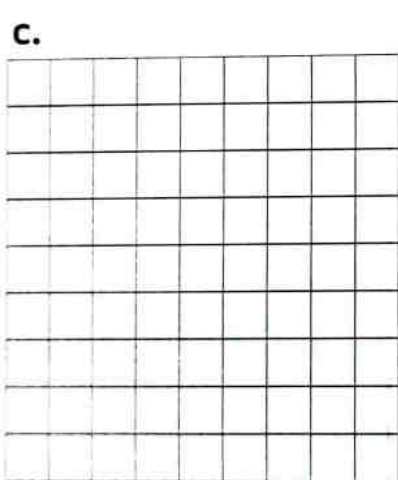
$$3 \times 5 = 15 \square$$

b.



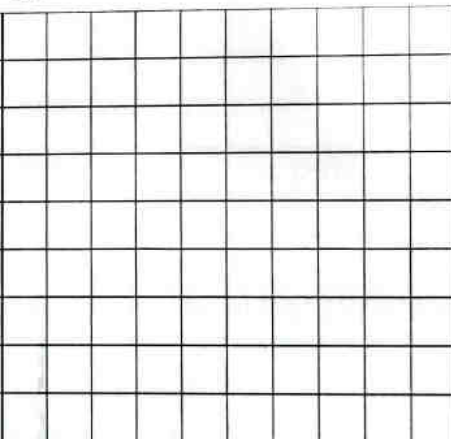
$$2 \times 7 = \square$$

c.



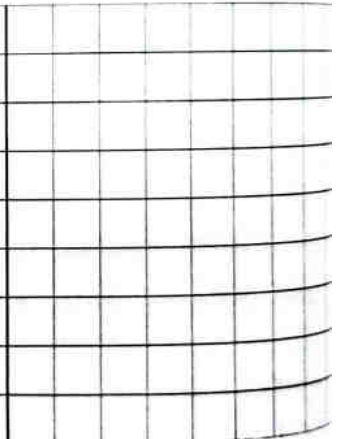
$$4 \times 2 = \square$$

d.



$$8 \times 3 = \square$$

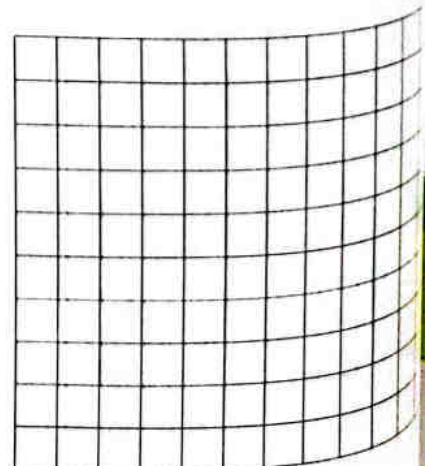
e.



$$6 \times 1 = \square$$

5 Use the grids to solve the following.

- a. Sara is planting pumpkin.
 Each pumpkin needs 1 square unit of space. She would like the garden to have 4 rows with 2 square units in each row. How many pumpkin can she fit?
 What is the area of her garden in square units?



- b. Ahmed wants to plant mango. Each mango needs 1 square unit of space. He would like the garden to have 5 rows with 5 square units in each row. How many mango can Ahmed plant in his garden? What is the area of his garden in square units?



- c. Draw a square of 6 rows and calculate the area of the square.

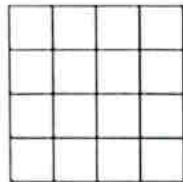


- d. Draw a rectangle of 7 rows with 4 square units in each row. Calculate the area of the rectangle.

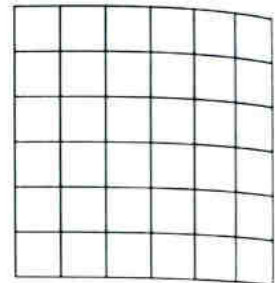


Second : Exercises on equal areas

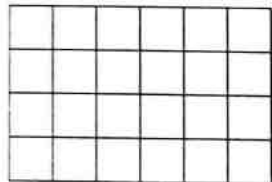
- 1** Complete the equations under each of the following.
Match the equal areas.



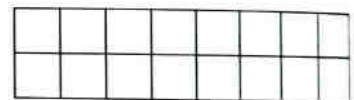
$$\square \times \square = \square$$



$$\square \times \square = \square$$



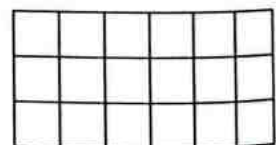
$$\square \times \square = \square$$



$$\square \times \square = \square$$



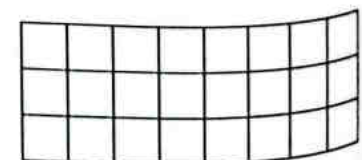
$$\square \times \square = \square$$



$$\square \times \square = \square$$



$$\square \times \square = \square$$

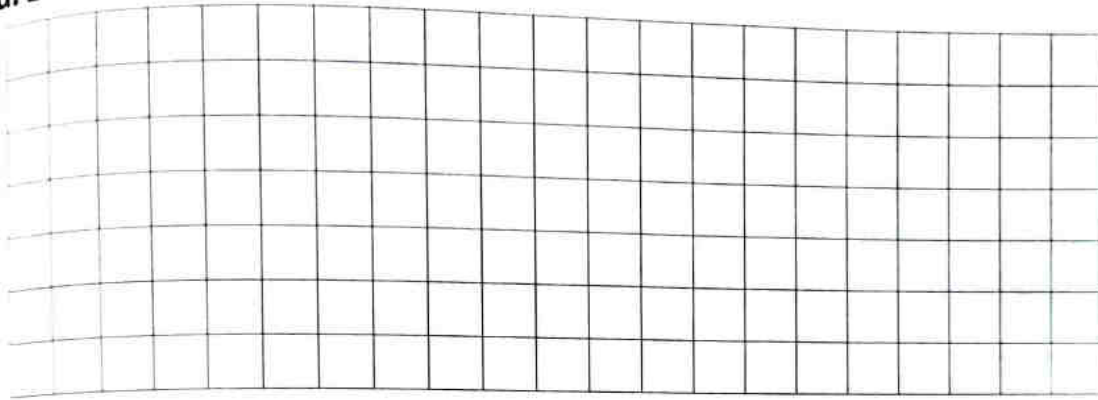


$$\square \times \square = \square$$

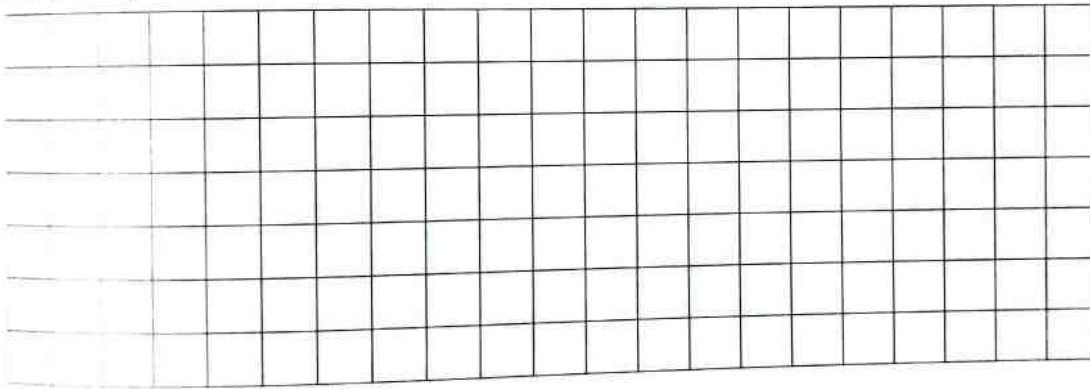


2 Use commutative property to draw two different rectangles of the following dimensions. Multiply to find the area.

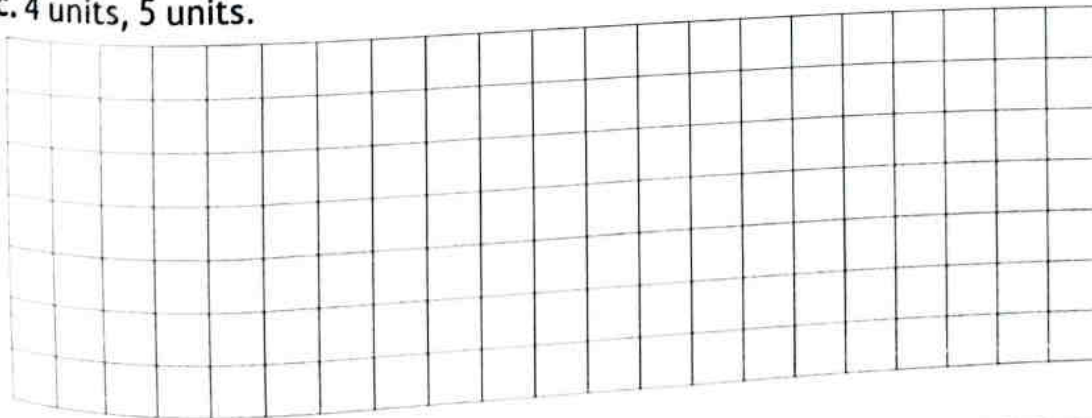
a. 2 units, 3 units.



b. 3 units, 4 units.

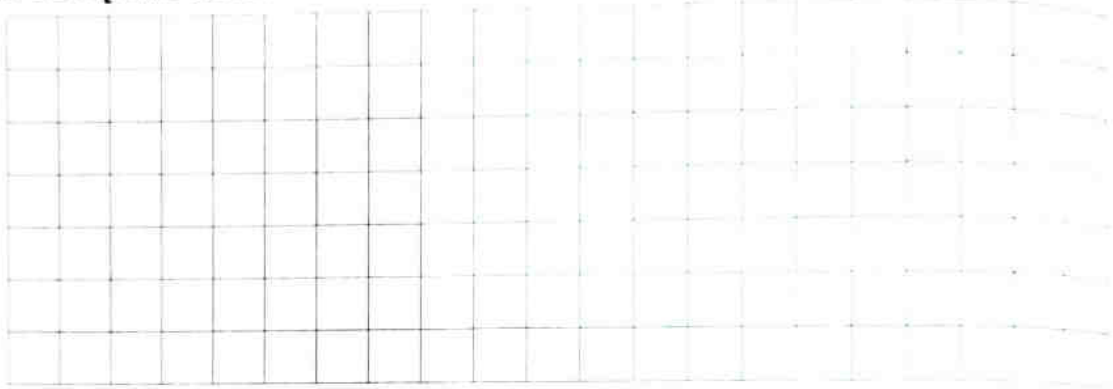


c. 4 units, 5 units.

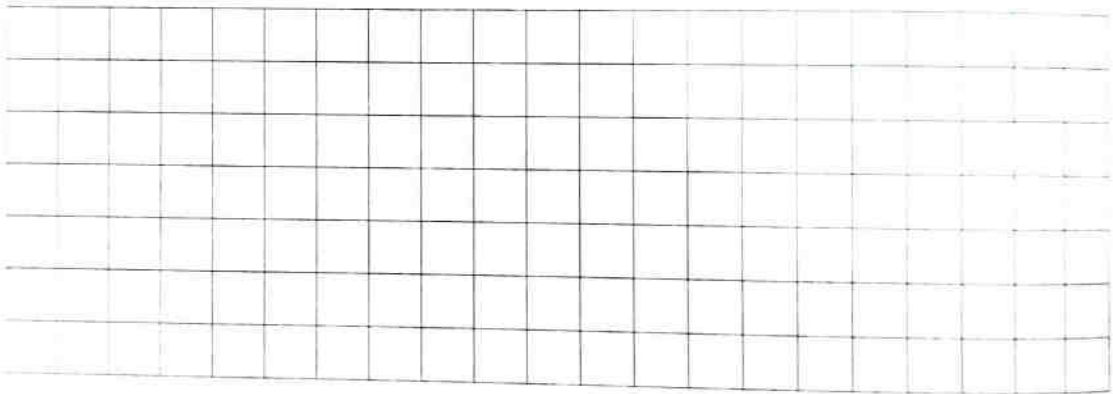


- 3** Draw on the grids rectangles with different dimensions with an area of each of the following. Write the multiplication equations for each rectangle.

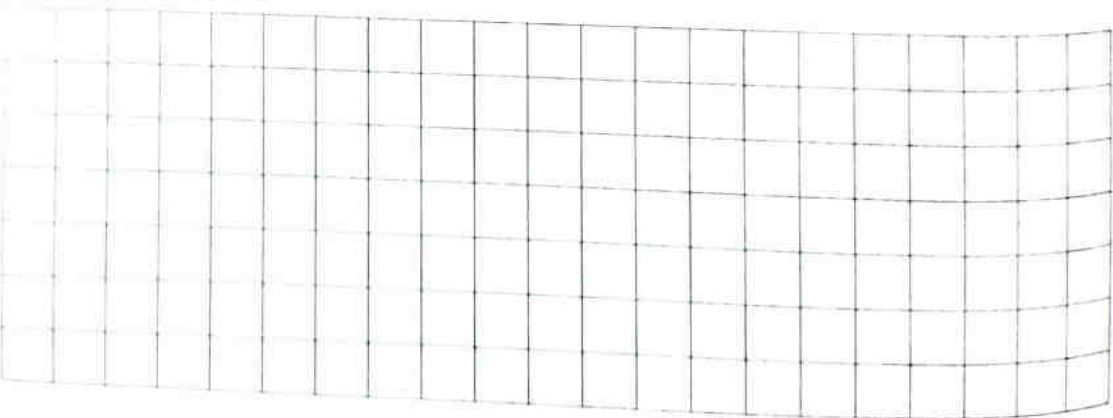
a. 12 square units.



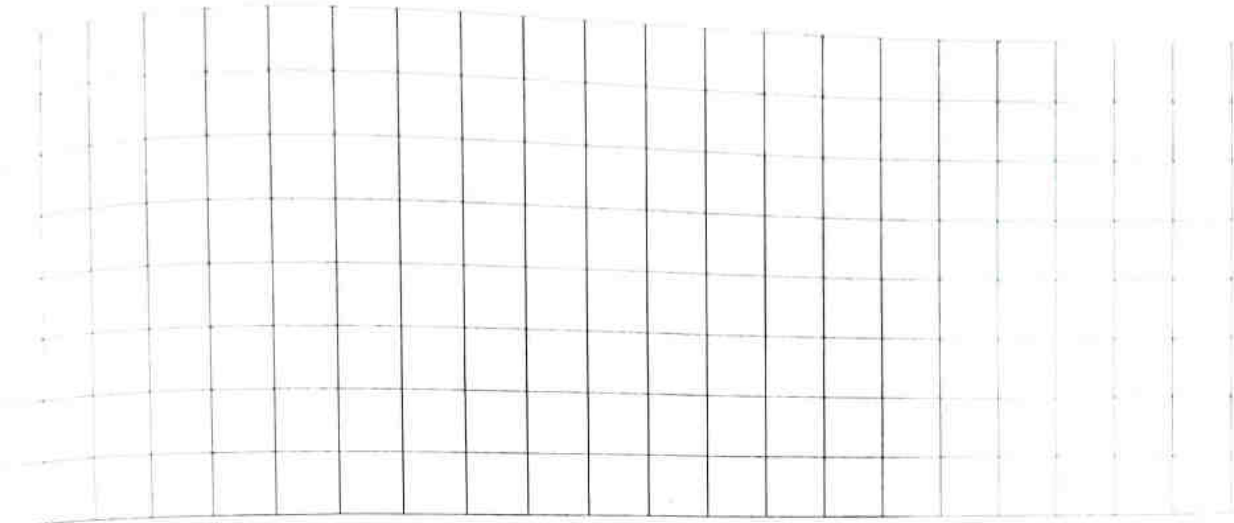
b. 18 square units.



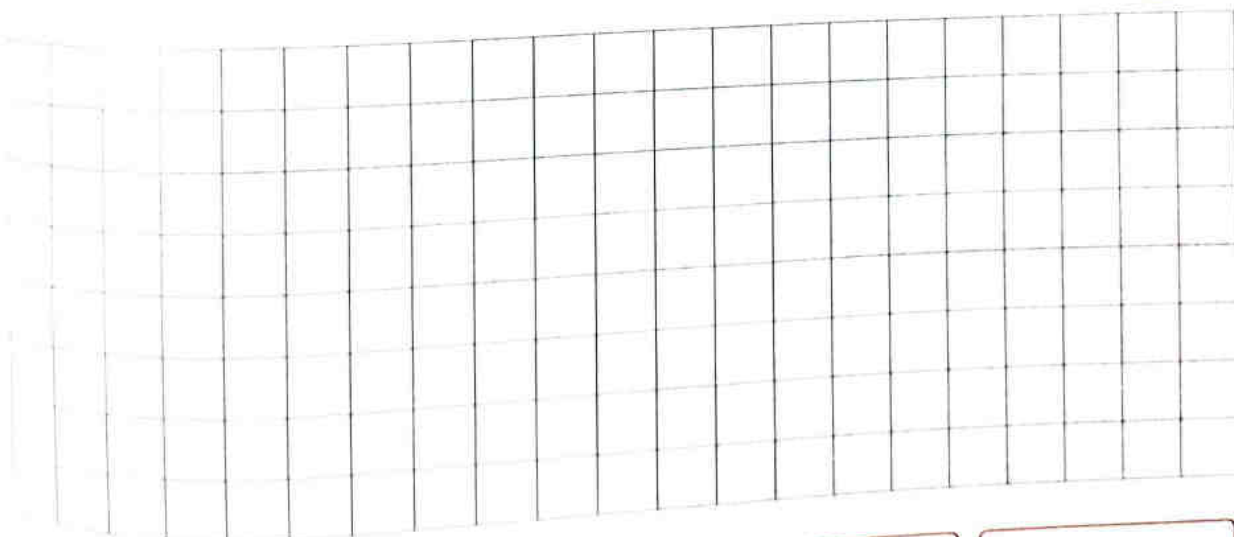
c. 24 square units.



- 4 Bassem planted two flower plots. One was 3×6 and one was 2×9 .
Do they have the same area?
Write the two commutative property sentences for each plot.



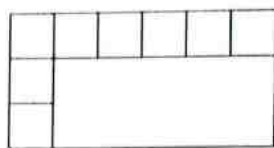
- 5 Amira wanted to plant 24 flowers. If one flower needs 1 square unit.
Show two ways for the area of 24 square units.
Write the two commutative property sentences for each.



Third : Exercises on area using dimensions

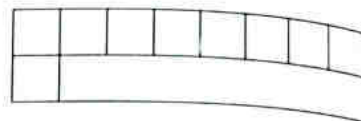
1 Determine the area of each shape.

a.



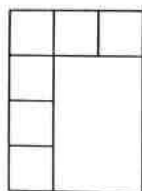
$$\begin{aligned} \text{Area} &= \frac{\text{rows}}{\text{rows}} \times \frac{\text{columns}}{\text{columns}} \\ &= \text{ } \text{ square units} \end{aligned}$$

b.



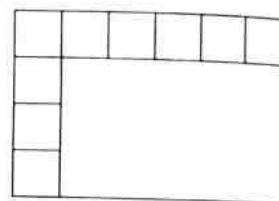
$$\begin{aligned} \text{Area} &= \frac{\text{rows}}{\text{rows}} \times \frac{\text{columns}}{\text{columns}} \\ &= \text{ } \text{ square units} \end{aligned}$$

c.



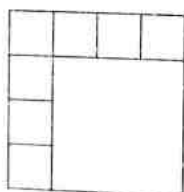
$$\begin{aligned} \text{Area} &= \frac{\text{rows}}{\text{rows}} \times \frac{\text{columns}}{\text{columns}} \\ &= \text{ } \text{ square units} \end{aligned}$$

d.



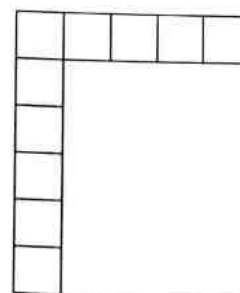
$$\begin{aligned} \text{Area} &= \frac{\text{rows}}{\text{rows}} \times \frac{\text{columns}}{\text{columns}} \\ &= \text{ } \text{ square units} \end{aligned}$$

e.



$$\begin{aligned} \text{Area} &= \frac{\text{rows}}{\text{rows}} \times \frac{\text{columns}}{\text{columns}} \\ &= \text{ } \text{ square units} \end{aligned}$$

f.

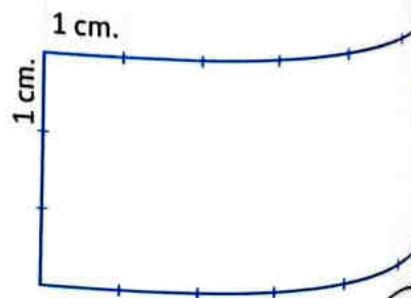


$$\begin{aligned} \text{Area} &= \frac{\text{rows}}{\text{rows}} \times \frac{\text{columns}}{\text{columns}} \\ &= \text{ } \text{ square units} \end{aligned}$$



Challenge

2 Use your ruler to measure the width and the length of the rectangle. Calculate the area of the rectangle.



Place a smiley face

Learn

Distributive property

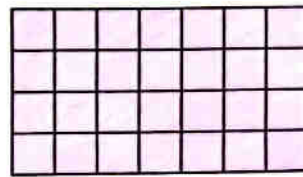
- Distributive property tells us we can divide (break apart) a multiplication problem into two or more smaller problems, add together their products, and get the final answer.
- To find how many squares in big arrays as the following array :

Multiply the number of rows by the number in each row.

4 rows of 7

$$\frac{4}{\text{rows}} \times \frac{7}{\text{in each row}} = \frac{28}{\text{Total}}$$

4



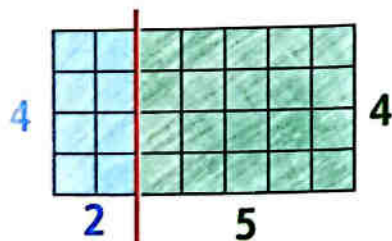
7



Another way using distributive property :

Break apart an array into two smaller arrays and add the products of the two arrays.

(There are more than one correct way to break apart an array).



4

2

5

4

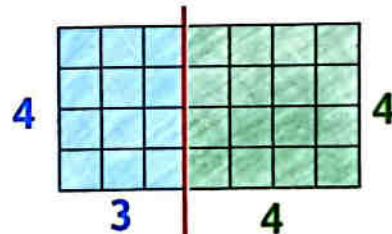
4 rows of 2

4 rows of 5

$$\frac{4}{\text{rows}} \times \frac{2}{\text{in each row}} = 8$$

$$\frac{4}{\text{rows}} \times \frac{5}{\text{in each row}} = 20$$

$$8 + 20 = 28$$



4

3

4

4

4 rows of 3

4 rows of 4

$$\frac{4}{\text{rows}} \times \frac{3}{\text{in each row}} = 12$$

$$\frac{4}{\text{rows}} \times \frac{4}{\text{in each row}} = 16$$

$$12 + 16 = 28$$

From above :

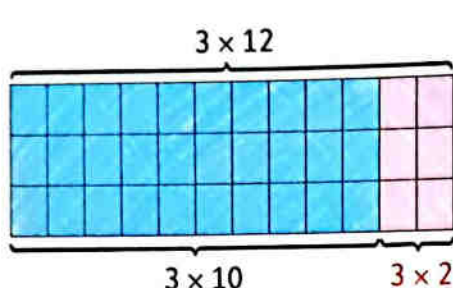
$$4 \times 7 = (4 \times 2) + (4 \times 5)$$

$$4 \times 7 = (4 \times 3) + (4 \times 4)$$

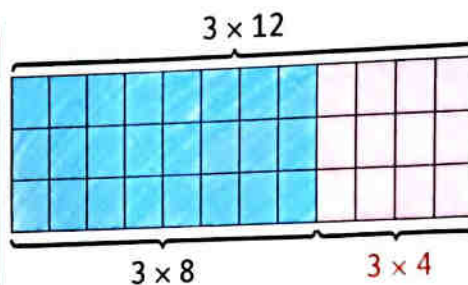
Example 1

Find the product of 3×12 in 3 ways using distributive property.

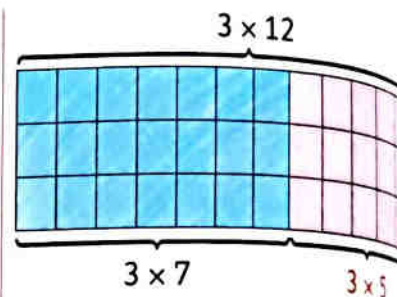
Solution ✓



$$\begin{aligned} 3 \times 12 &= 3 \times 10 + 3 \times 2 \\ &= 30 + 6 \\ &= 36 \end{aligned}$$



$$\begin{aligned} 3 \times 12 &= 3 \times 8 + 3 \times 4 \\ &= 24 + 12 \\ &= 36 \end{aligned}$$



$$\begin{aligned} 3 \times 12 &= 3 \times 7 + 3 \times 5 \\ &= 21 + 15 \\ &= 36 \end{aligned}$$

Example 2

Use the distributive property to complete the following.

a. $5 \times 8 = (5 \times 6) + (5 \times \underline{\quad})$

b. $3 \times \underline{\quad} = (3 \times 5) + (3 \times 2)$

Solution ✓

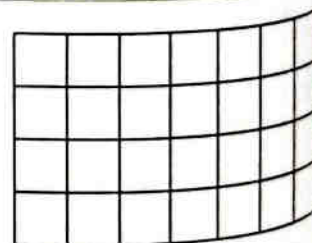
a. $5 \times 8 = (5 \times 6) + (5 \times 2)$ [Hint : $8 = 6 + 2$]

b. $3 \times 7 = (3 \times 5) + (3 \times 2)$ [Hint : $5 + 2 = 7$]



Check ✓

- Find another way to break apart the same array.
Write the two equations of the two smaller arrays.



- Complete the following.

a. $6 \times 8 = (6 \times 3) + (6 \times \underline{\quad})$

b. $2 \times 9 = (\underline{\quad} \times 5) + (2 \times \underline{\quad})$

c. $(3 \times 5) + (3 \times 6) = 3 \times \underline{\quad}$

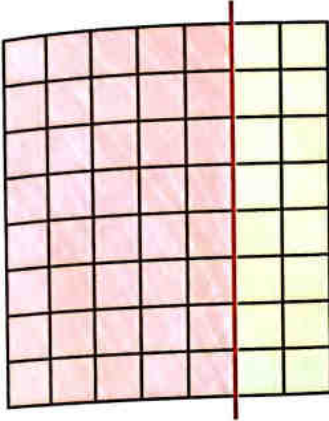
Exercise 23

Distributive property of multiplication

On Lessons 38 to 40

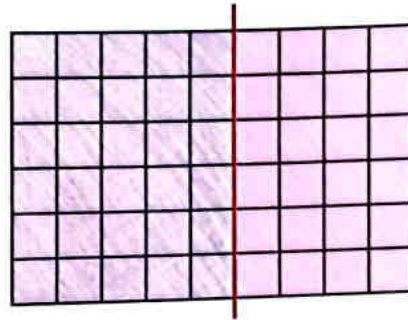
1 Write the distributive property equation of each.

a.



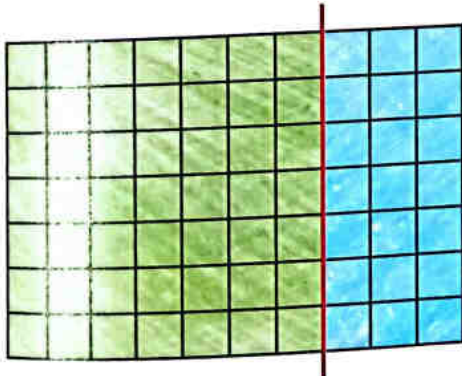
$$8 \times \square = (\square \times \square) + (\square \times \square)$$

b.



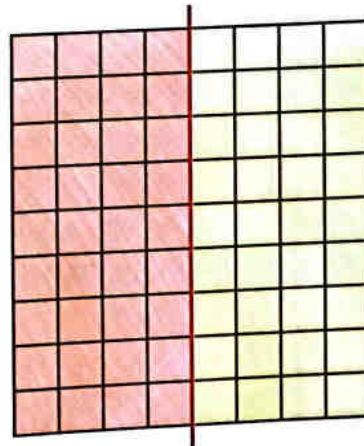
$$\square \times \square = (\square \times \square) + (\square \times \square)$$

c.



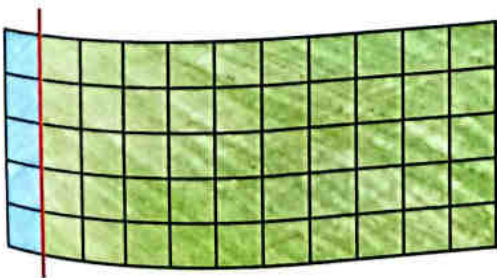
$$\square \times \square = (\square \times \square) + (\square \times \square)$$

d.



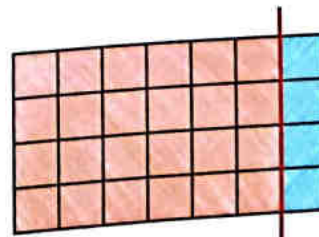
$$\square \times \square = (\square \times \square) + (\square \times \square)$$

e.



$$\square \times \square = (\square \times \square) + (\square \times \square)$$

f.

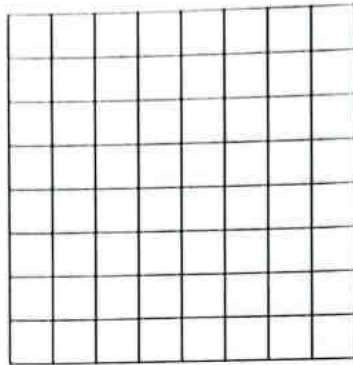


$$\square \times \square = (\square \times \square) + (\square \times \square)$$

2 Break apart the following arrays according to the distributive property equations.

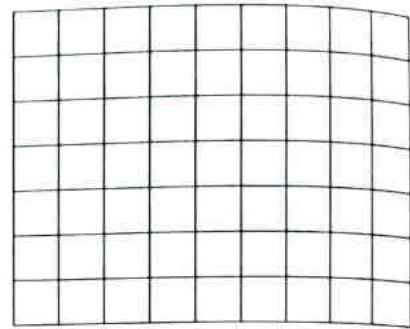


a.



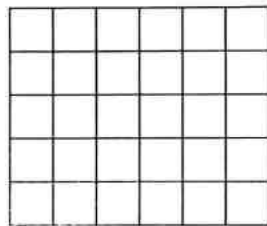
$$8 \times 8 = (8 \times 5) + (8 \times 3)$$

b.



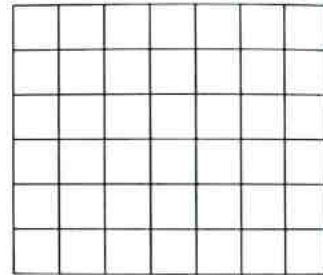
$$7 \times 9 = (7 \times 2) + (7 \times 7)$$

c.



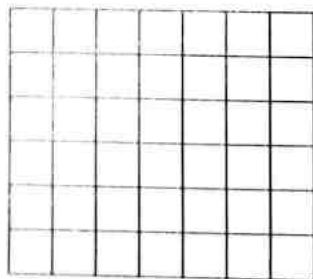
$$5 \times 6 = (5 \times 4) + (5 \times 2)$$

d.



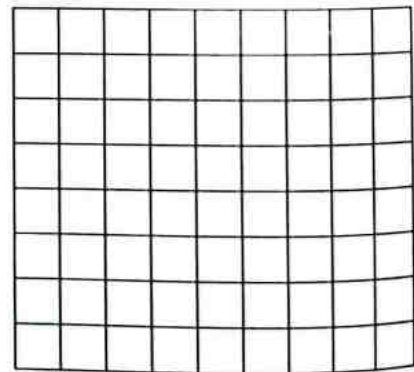
$$6 \times 7 = (6 \times 1) + (6 \times 6)$$

e.



$$6 \times 7 = (6 \times 3) + (6 \times 4)$$

f.

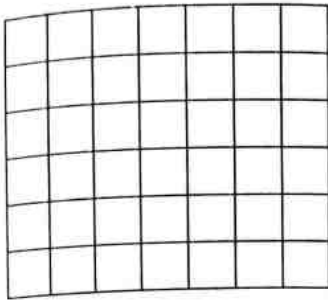


$$8 \times 9 = (8 \times 4) + (8 \times 5)$$

3 Break apart the arrays, using the distributive property write the equations.



a.



$$\square \times \square = \square$$

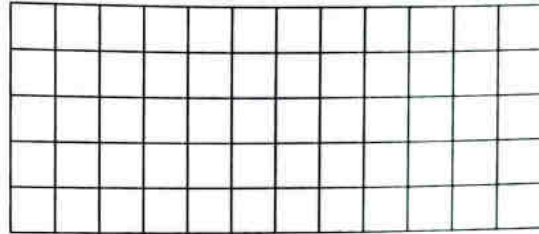
$$\square \times \square = \square$$

$$\square + \square = \bigcirc$$

$$6 \times 7 = \bigcirc$$

$$6 \times 7 = (\square \times \square) + (\square \times \square)$$

b.



$$\square \times \square = \square$$

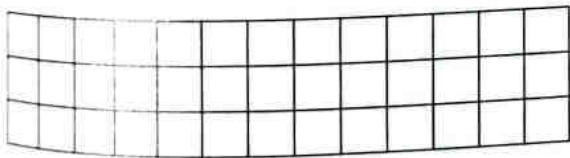
$$\square \times \square = \square$$

$$\square + \square = \bigcirc$$

$$5 \times 12 = \bigcirc$$

$$5 \times 12 = (\square \times \square) + (\square \times \square)$$

c.



$$\square \times \square = \square$$

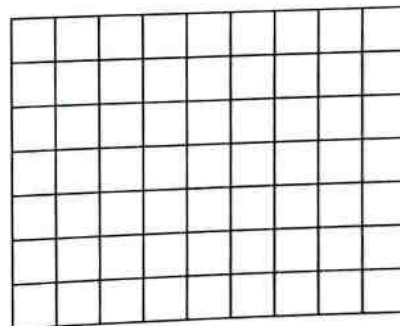
$$\square \times \square = \square$$

$$\square + \square = \bigcirc$$

$$3 \times 13 = \bigcirc$$

$$3 \times 13 = (\square \times \square) + (\square \times \square)$$

d.



$$\square \times \square = \square$$

$$\square \times \square = \square$$

$$\square + \square = \bigcirc$$

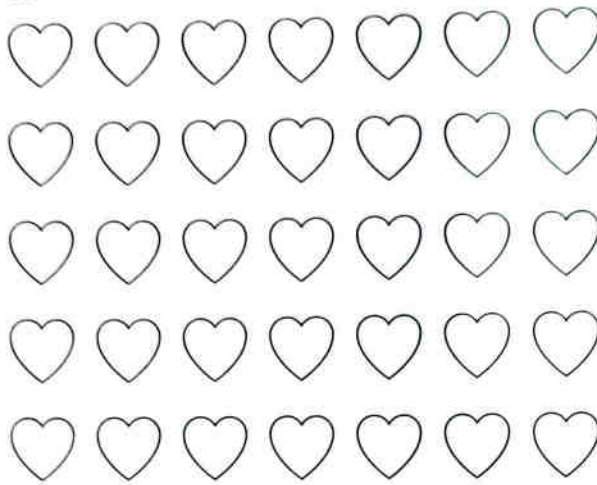
$$7 \times 9 = \bigcirc$$

$$7 \times 9 = (\square \times \square) + (\square \times \square)$$

- 4** Break apart each of the following arrays into two smaller arrays. Use different colors to keep track of your different arrays. Write the equations that match it.



a.



$$\square \times \square = \square$$

$$\square \times \square = \square$$

$$\square + \square = \bigcirc$$

$$5 \times 7 = \bigcirc$$

$$5 \times 7 = (\square \times \square) + (\square \times \square)$$

b.



$$\square \times \square = \square$$

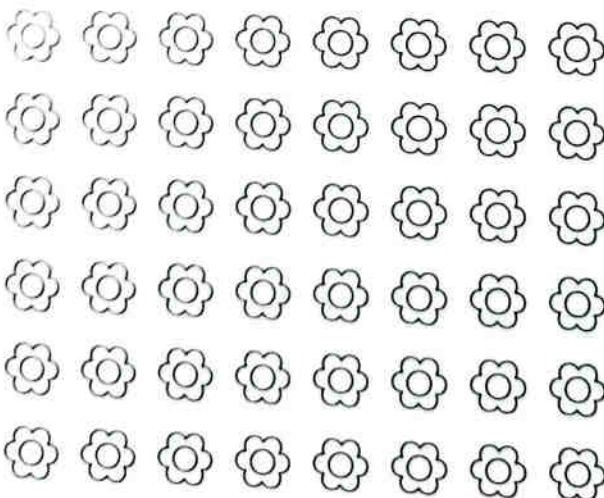
$$\square \times \square = \square$$

$$\square + \square = \bigcirc$$

$$4 \times 7 = \bigcirc$$

$$4 \times 7 = (\square \times \square) + (\square \times \square)$$

c.



$$\square \times \square = \square$$

$$\square \times \square = \square$$

$$\square + \square = \bigcirc$$

$$6 \times 8 = \bigcirc$$

$$6 \times 8 = (\square \times \square) + (\square \times \square)$$

5 Use the distributive property to complete the following equations.

a. $3 \times 9 = (3 \times 6) + (3 \times \underline{\quad})$

b. $4 \times 7 = (4 \times 2) + (4 \times \underline{\quad})$

c. $8 \times 12 = (\underline{\quad} \times 2) + (8 \times \underline{\quad})$

d. $9 \times 9 = (9 \times 4) + (\underline{\quad} \times \underline{\quad})$

e. $6 \times 6 = (6 \times 5) + (6 \times \underline{\quad})$

f. $4 \times 8 = (4 \times 4) + (\underline{\quad} \times \underline{\quad})$

g. $7 \times 9 = (\underline{\quad} \times 4) + (7 \times \underline{\quad})$

h. $5 \times 15 = (5 \times 5) + (\underline{\quad} \times \underline{\quad})$

i. $\underline{\quad} \times \underline{\quad} = (5 \times 6) + (5 \times 1)$

j. $3 \times 11 = (\underline{\quad} \times 10) + (3 \times \underline{\quad})$

k. $7 \times \underline{\quad} = (7 \times 6) + (7 \times 4)$

l. $9 \times 13 = (9 \times 7) + (9 \times \underline{\quad})$

6 Use the distributive property to complete the following equations and find the total.

a. $6 \times 7 = (6 \times 2) + (6 \times \underline{\quad})$
 $= \underline{\quad} + \underline{\quad} = \underline{\quad}$

b. $9 \times 8 = (9 \times 4) + (9 \times \underline{\quad})$
 $= \underline{\quad} + \underline{\quad} = \underline{\quad}$

c. $4 \times 9 = (4 \times \underline{\quad}) + (\underline{\quad} \times 5)$
 $= \underline{\quad} + \underline{\quad} = \underline{\quad}$

d. $3 \times 14 = (\underline{\quad} \times 4) + (\underline{\quad} \times \underline{\quad})$
 $= \underline{\quad} + \underline{\quad} = \underline{\quad}$

e. $9 \times 6 = (\underline{\quad} \times 3) + (\underline{\quad} \times \underline{\quad})$
 $= \underline{\quad} + \underline{\quad} = \underline{\quad}$

f. $5 \times 7 = (\underline{\quad} \times 6) + (\underline{\quad} \times \underline{\quad})$
 $= \underline{\quad} + \underline{\quad} = \underline{\quad}$

g. $12 \times 2 = (\underline{\quad} \times 1) + (\underline{\quad} \times 12)$
 $= \underline{\quad} + \underline{\quad} = \underline{\quad}$

h. $10 \times 11 = (\underline{\quad} \times 10) + (\underline{\quad} \times 1)$
 $= \underline{\quad} + \underline{\quad} = \underline{\quad}$

7 Match.

a. 3×10

b. 7×6

c. 4×9

d. 9×13

e. 6×11

$(4 \times 5) + (4 \times 4)$

$(3 \times 7) + (3 \times 3)$

$(7 \times 5) + (7 \times 1)$

$(6 \times 6) + (6 \times 5)$

$(9 \times 10) + (9 \times 3)$



8 Choose the correct answer.

a. $5 \times 11 = (5 \times 10) + (5 \times \underline{\quad})$

(1 or 5 or 10 or 11)

b. $7 \times \underline{\quad} = (7 \times 10) + (7 \times 3)$

(7 or 10 or 13 or 3)

c. $(4 \times 9) + (4 \times 6) = \underline{\quad} \times 15$

(4 or 6 or 9 or 15)

d. $6 \times 13 = (6 \times \underline{\quad}) + (6 \times 3)$

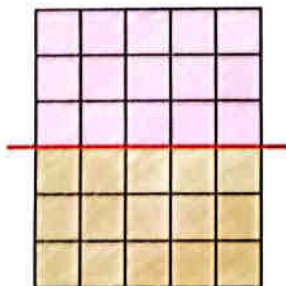
(3 or 6 or 10 or 13)

e. $4 \times 10 = (4 \times \triangle) + (4 \times \bigcirc)$, then $\triangle + \bigcirc = \underline{\quad}$

(4 or 6 or 8 or 10)

Challenge

9 Complete.



$\square \times \square = (\square \times \square) + (\square \times \square)$



Place a smiley face



Assessment Chapter 4

1 Choose.

a. Which of the following is not a polygon?

☐ Square

☐ Circle

☐ Hexagon

b. How many sides does this shape have?

☐ 5 sides

☐ 7 sides



☐ 6 sides

c. Which of the following does not represent a parallelogram?


☐ Square

☐ Trapezium

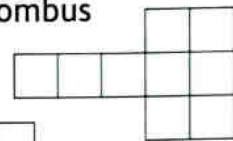
☐ Rhombus

d. The area of the opposite figure is _____

☐ 6 

☐ 12 

☐ 9 



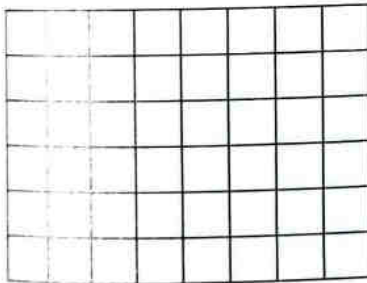
e. _____ = $(4 \times 4) + (4 \times 5)$

☐ 4×9

☐ 4×6

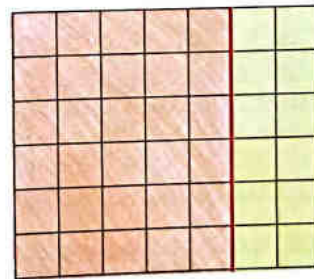
☐ 4×1

2 Calculate the area of the figure.



The area = _____ \times _____
= _____ square units

3 Write the distributive property equation. Calculate the total area.



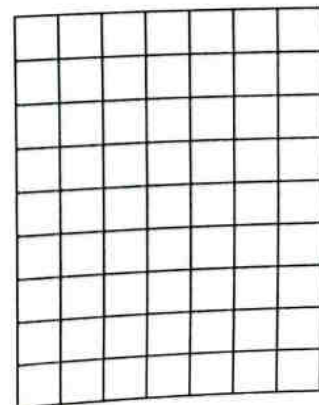
$6 \times 7 = (\text{_____} \times \text{_____}) + (\text{_____} \times \text{_____})$
= _____ square units

4 Yassen loves peach and wants to plant it in his garden.

Peach needs 1 square unit of space.

He would like the garden to have 7 rows with 5 square units in each row. How many peach can Yassen fit in his garden?

What is the area of his garden in square units?

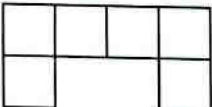





1 Complete.

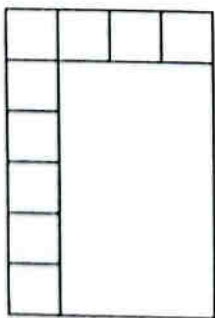
- a. 321, 432, 543, 654, _____, _____ (in the same pattern)
- b. $50,000 + 500 + 3,000 + 30 + 8 =$ _____
- c. $2 \times 5 =$ _____
- d. The pentagon is a polygon which has _____ vertices.
- e. $3 \text{ m} =$ _____ cm
- f. _____ $\div 3 = 5$
- g. $7 \times 13 = 7 \times 10 + 7 \times$ _____

2 Put (✓) to the correct statement or (X) to the incorrect statement.

- a. $7 \times 15 = (7 \times 10) + (7 \times 5)$ is called the distributive property of addition. ()
- b. $3 \times 7 = 7 \times 3$ is called the commutative property of multiplication. ()
- c. 3 rows of 5 = $3 \times 5 = 15$ ()
- d. $5 \times 1 = 5 \div 1$ ()
- e. The rectangle's vertices are not similar. ()
- f. $5 + 5 + 5 = 3 + 3 + 3 + 3 + 3$ ()
- g. The area of the figure  equals 8  ()

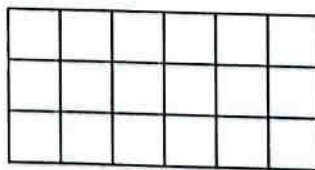
3 Calculate the area of each of the following.

a.



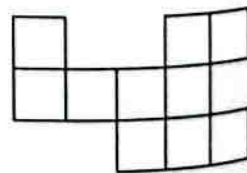
Area = _____ \times _____
= _____ square units

b.




Area = _____ \times _____
= _____ square units

c.



Area = _____ 

a Name each figure and write the missing numbers.

a.  Name

pairs of equal sides

pairs of parallel sides

vertices

b.



Name

equal sides

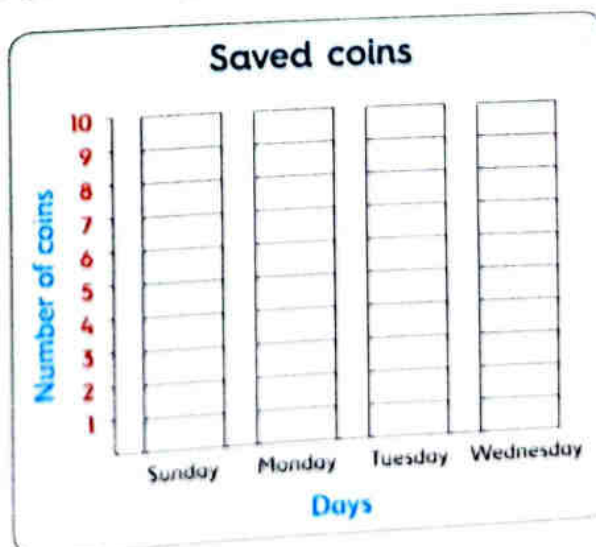
pair of parallel sides

vertices

5 Draw a model groups. Then write an addition sentence and multiplication sentence for **2 groups of 3**

6 Count the tallies. Write the total. Color the graph to show the data.

Saved coins		
Day	Tally	Number
Sunday		
Monday		
Tuesday		
Wednesday		



CHAPTER

5



Learn 1 Perimeter



- The perimeter is the distance around a figure or a polygon.

• First :

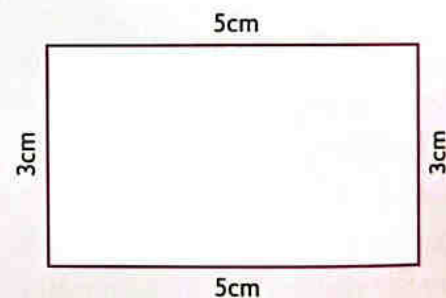
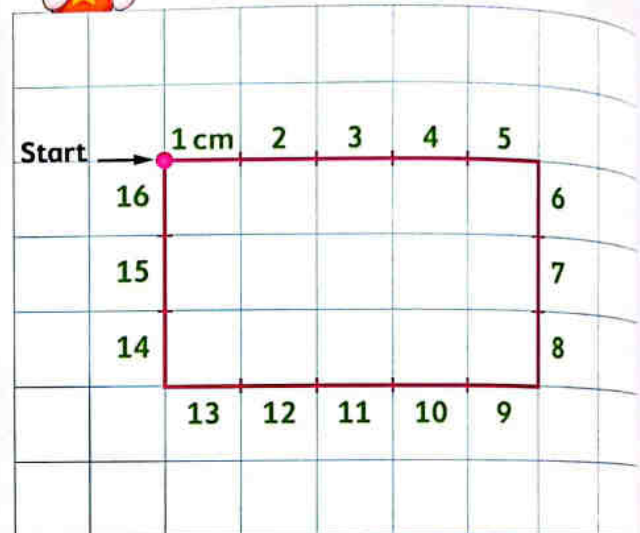
You can find the perimeter by counting the units along the outside of the figure.

The perimeter of the opposite figure = 16 cm

• Second :

You can find the perimeter by adding all the side length of the polygon.

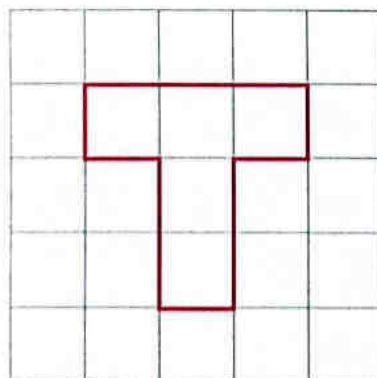
The perimeter of the opposite figure
= $5 + 3 + 5 + 3 = 16$ cm



Example 1

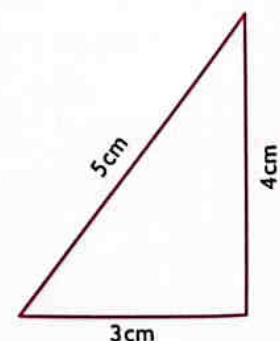
Find the perimeter of each figure.

a.



Perimeter = _____ units.

b.



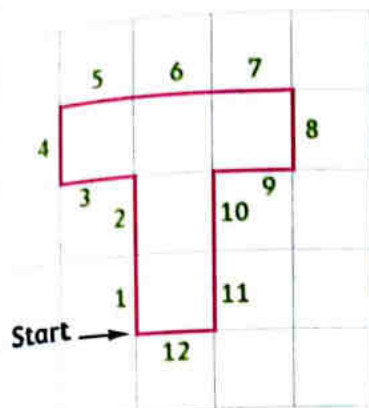
Perimeter = _____ + _____ + _____ = _____ cm

Notes for parents

- Help your child to find the perimeter of each figure.

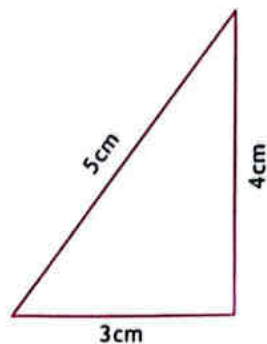
Solution ✓

a.



Perimeter = 12 units.

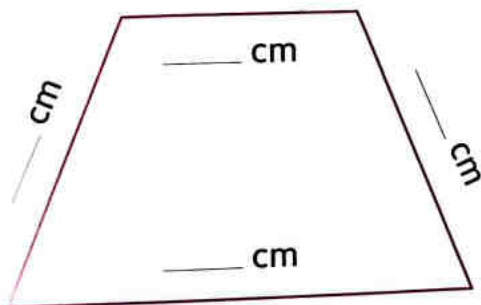
b.



Perimeter = 3 + 4 + 5 = 12 cm

Example 2

Measure each side. Add to find the perimeter.



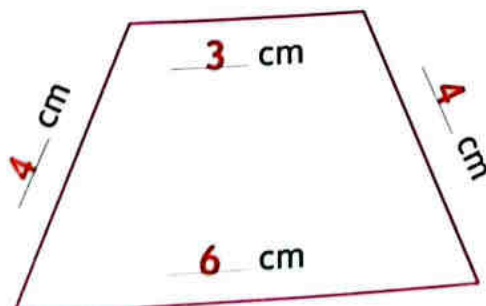
Math tip

Measuring length in one direction as length, width, distance between the endpoints of a side in a polygon is called linear measurement.

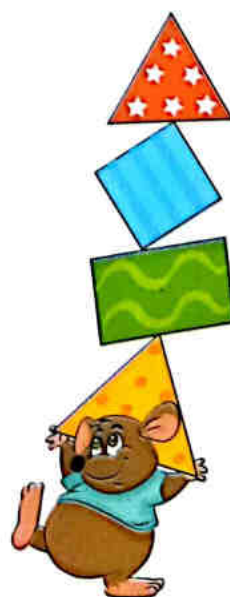


Perimeter = _____ + _____ + _____ + _____ = _____ cm

Solution ✓



Perimeter = 3 + 4 + 4 + 6 = 17 cm

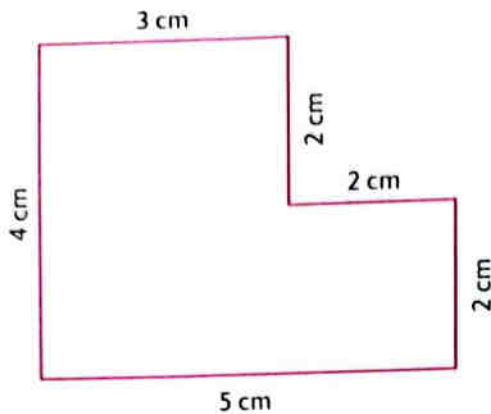


*Let your child use a centimeter ruler to measure the perimeter of a book.

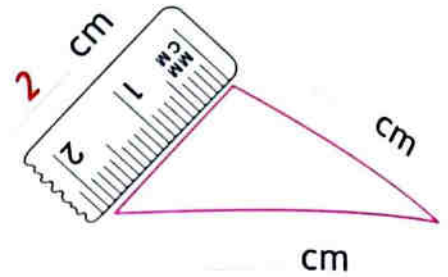
Check



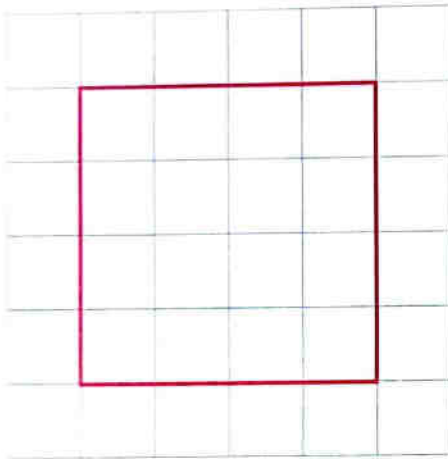
Find the perimeter of each figure.



Perimeter = _____ cm



Perimeter = _____ cm



Perimeter = _____ units.

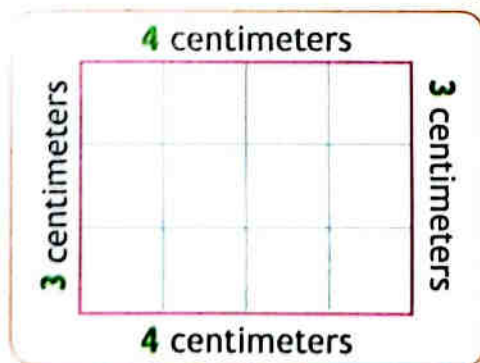


Remember

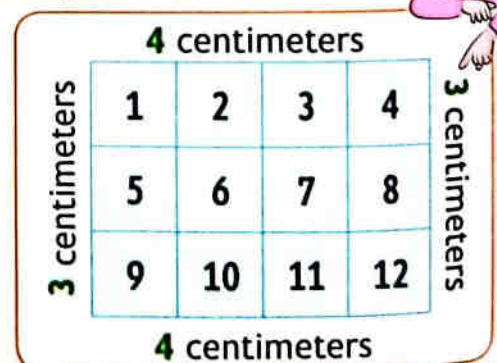
The difference between the perimeter and the area :

- Perimeter : Measurement of the distance around the shape.
- Area : Measurement of the space inside the shape.

What is the perimeter and the area of this shape ?



$$\begin{aligned} \text{Perimeter} &= 4 + 3 + 4 + 3 \\ &= 14 \text{ centimeters.} \end{aligned}$$



$$\text{Area} = 12 \text{ square centimeters.}$$



Example 3

Find the perimeter and the area of the opposite figure.

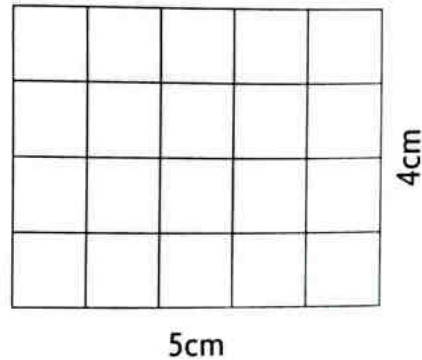
Perimeter = _____ cm

Area = _____ square centimeters.

Solution 

Perimeter = $4 + 5 + 4 + 5 = 18$ cm

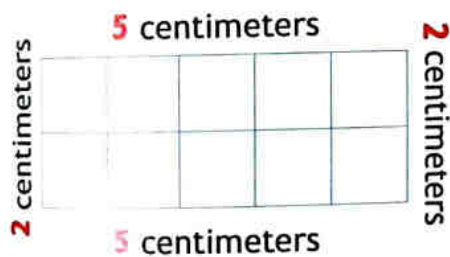
Area = 20 square centimeters.



Check



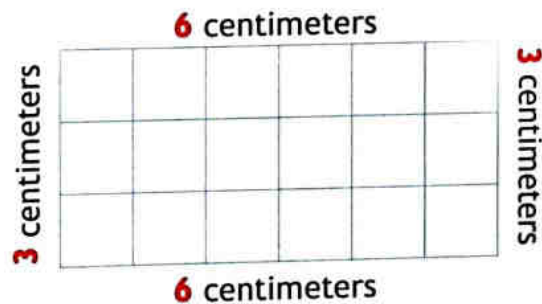
Find the perimeter and the area of each of the following figures.



Perimeter = _____ + _____ + _____ + _____

_____ = _____ cm

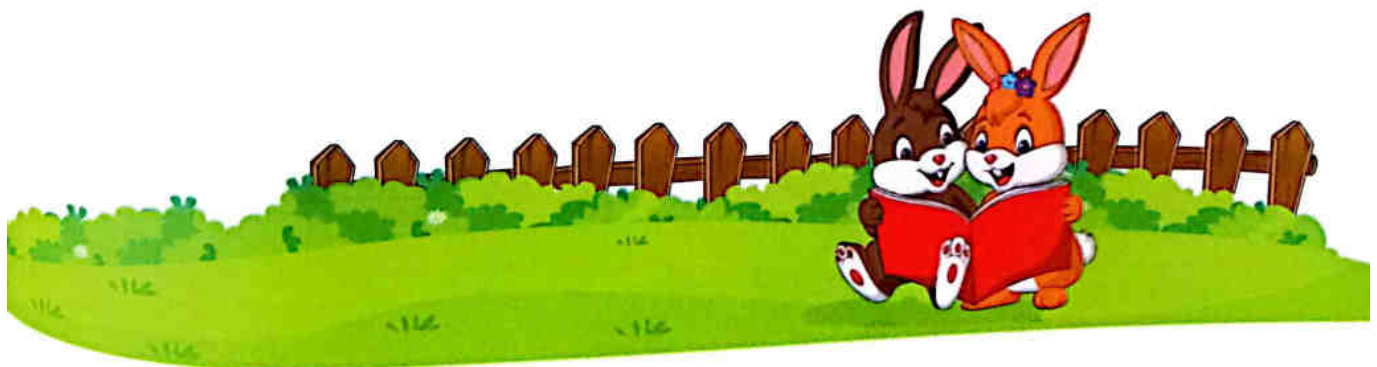
Area = _____ square centimeters.



Perimeter = _____ + _____ + _____ + _____

_____ = _____ cm

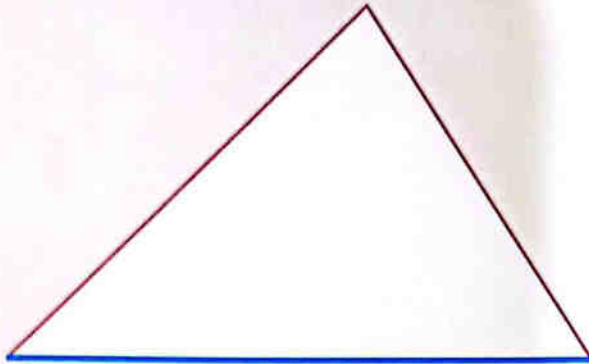
Area = _____ square centimeters.



* Let your child color or cross off as he/she counts to avoid counting twice or skipping units.

Learn 2 Estimating the side length

- How long is the blue side?



An estimation is what I think it will measure. I can measure with a centimeter.

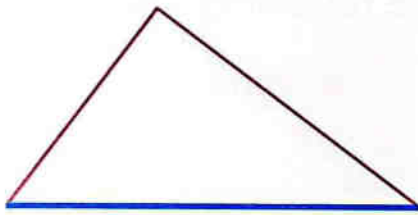
Estimate	Measure
about <u>6</u> cm	<u>7</u> cm



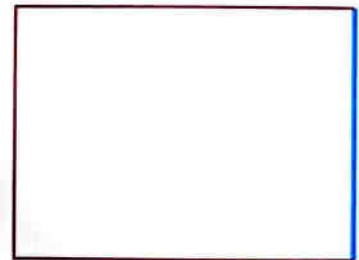
Check



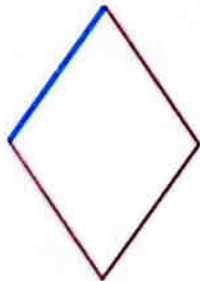
Estimate the length of the blue side.
Then use a ruler to measure it in centimeters.



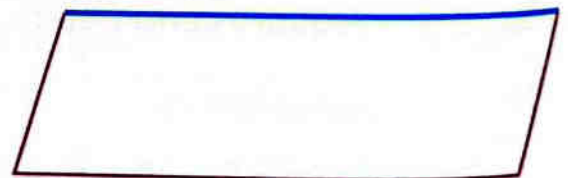
Estimate	about ____ cm
Measure	____ cm



Estimate	about ____ cm
Measure	____ cm



Estimate	about ____ cm
Measure	____ cm



Estimate	about ____ cm
Measure	____ cm

Exercise 24

Perimeter and area

On Lessons 41 to 44

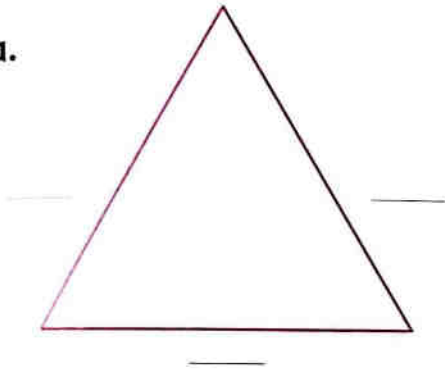
1 Measure each side and find the perimeter of each polygon.

then , **①** Color the polygon with the greatest perimeter in red.

② Color the polygon with the smallest perimeter in green.

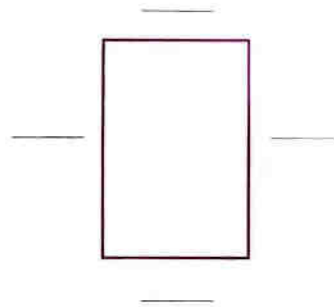
③ Color the polygon with the same perimeter in blue.

a.



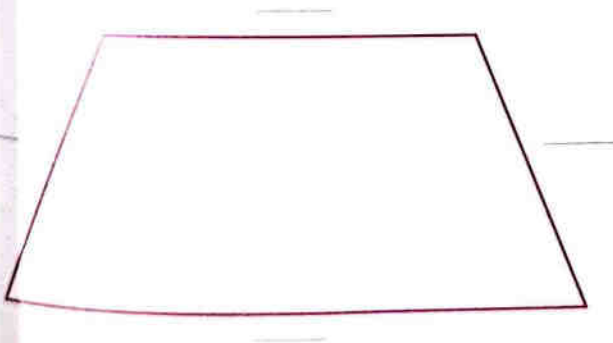
Perimeter = $\text{---} + \text{---} + \text{---}$
= --- cm

b.



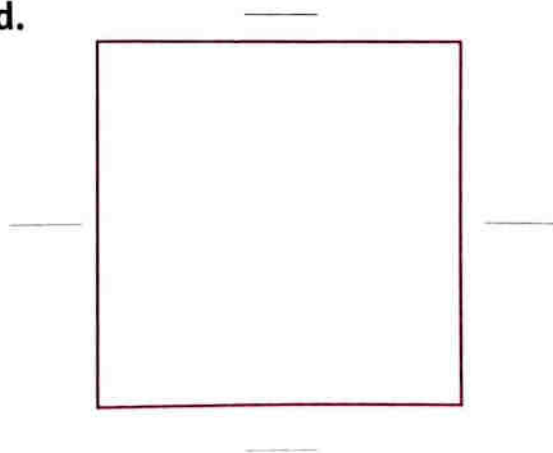
Perimeter = $\text{---} + \text{---} + \text{---} + \text{---}$
= --- cm

c.



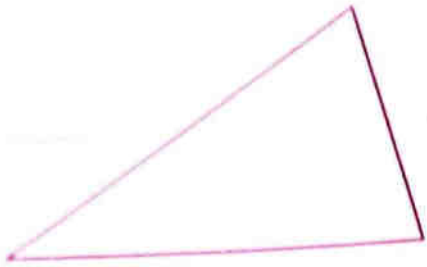
Perimeter = $\text{---} + \text{---} + \text{---} + \text{---}$
= --- cm

d.



Perimeter = $\text{---} + \text{---} + \text{---} + \text{---}$
= --- cm

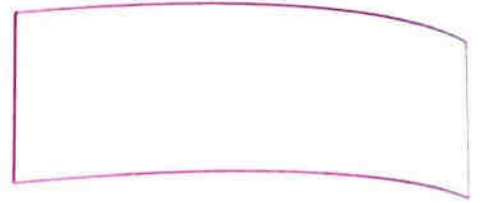
e.



$$\text{Perimeter} = \underline{\quad} + \underline{\quad} + \underline{\quad}$$

$$= \underline{\quad} \text{ cm}$$

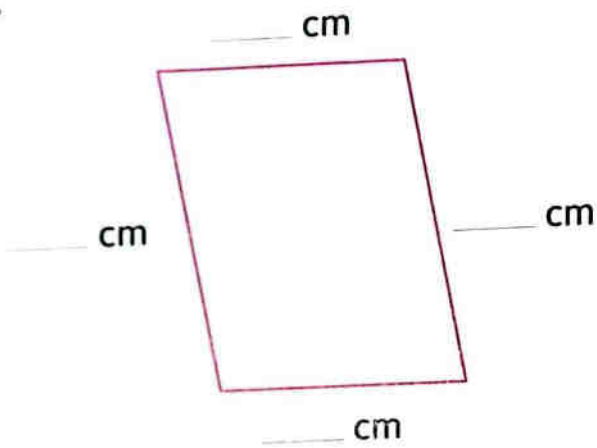
f.



$$\text{Perimeter} = \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad}$$

$$= \underline{\quad} \text{ cm}$$

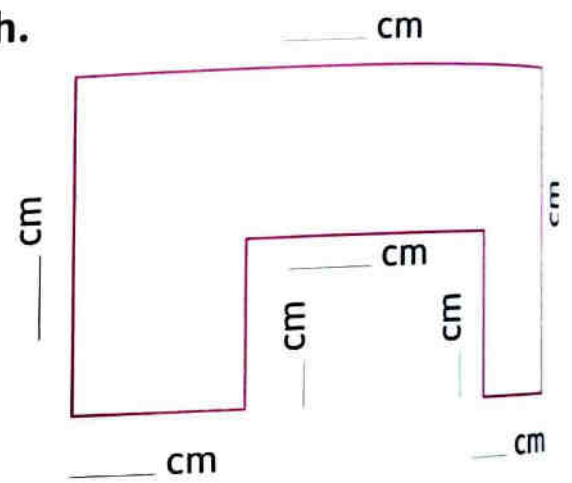
g.



$$\text{Perimeter} = \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad}$$

$$= \underline{\quad} \text{ cm}$$

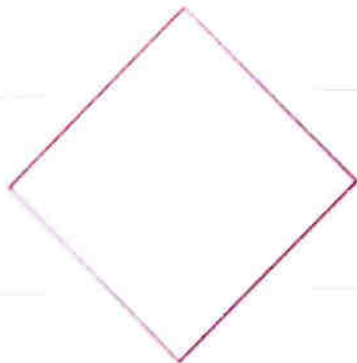
h.



$$\text{Perimeter} = \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad}$$

$$+ \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad} \text{ cm}$$

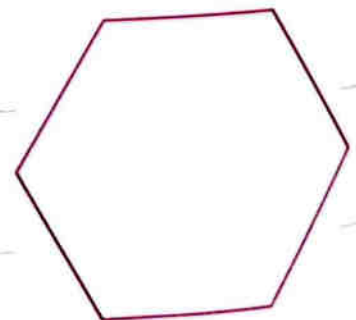
i.



$$\text{Perimeter} = \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad}$$

$$= \underline{\quad} \text{ cm}$$

j.

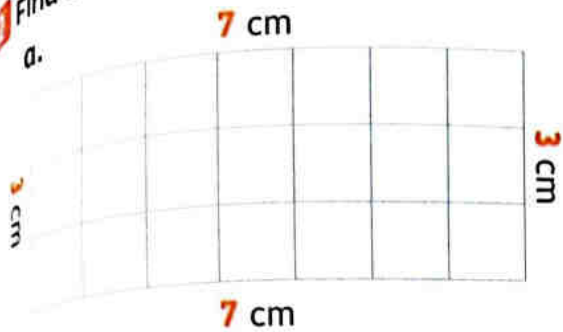


$$\text{Perimeter} = \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad}$$

$$= \underline{\quad} \text{ cm}$$

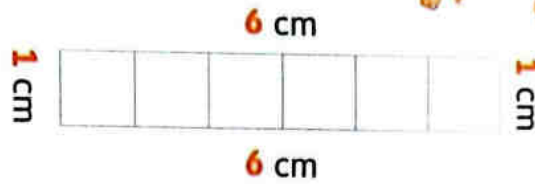


Find the perimeter and the area of each of the following figures.



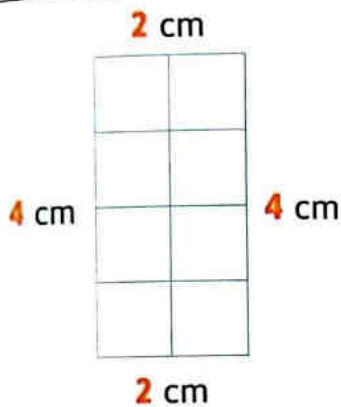
Perimeter = ____ cm
Area = ____ square centimeters

b.



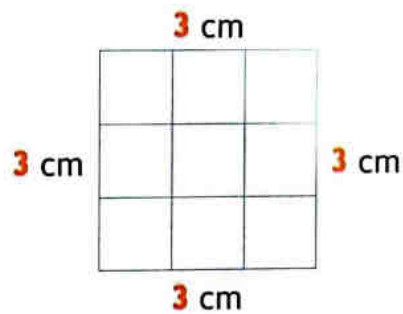
Perimeter = ____ cm
Area = ____ square centimeters

c.



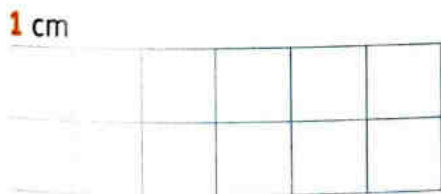
Perimeter = ____ cm
Area = ____ square centimeters

d.



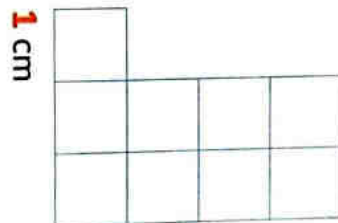
Perimeter = ____ cm
Area = ____ square centimeters

e.



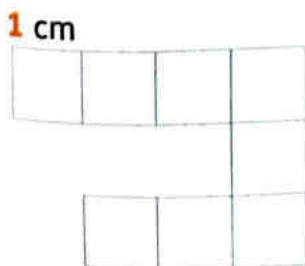
Perimeter = ____ cm
Area = ____ square centimeters

f.



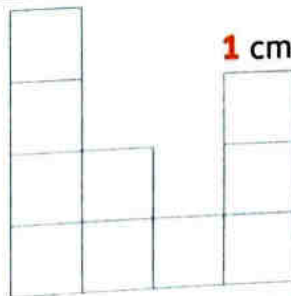
Perimeter = ____ cm
Area = ____ square centimeters

g.

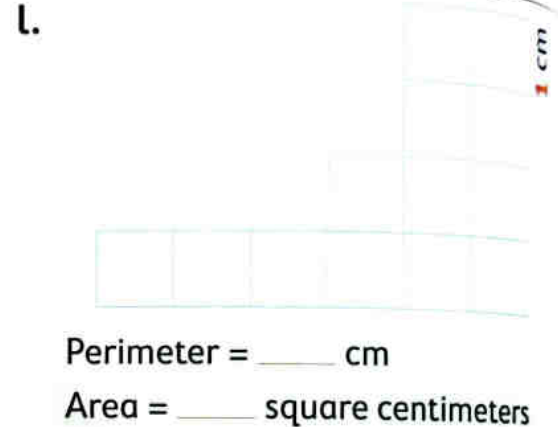
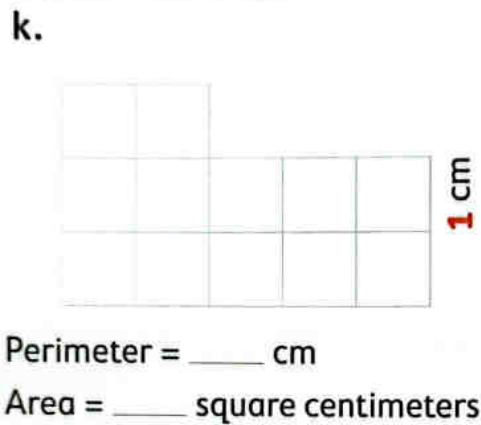
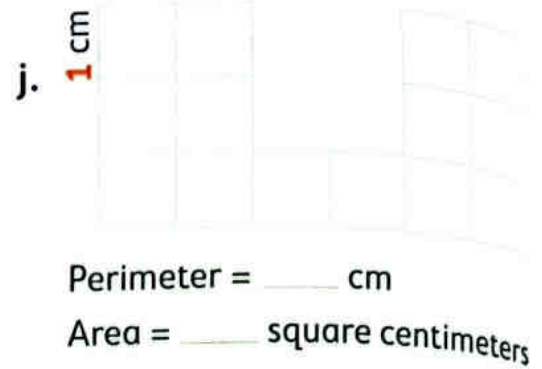
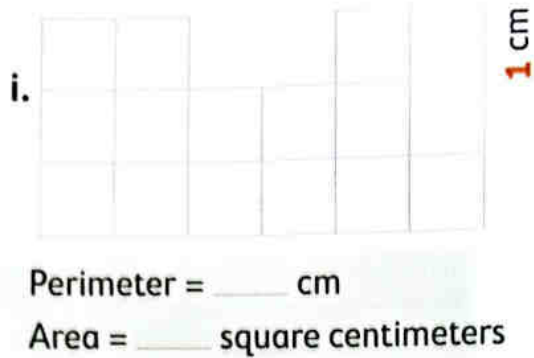


Perimeter = ____ cm
Area = ____ square centimeters

h.



Perimeter = ____ cm
Area = ____ square centimeters



3 Look at the picture. Then answer.

Consider the side length of the small square on the grid is **1 meter**.

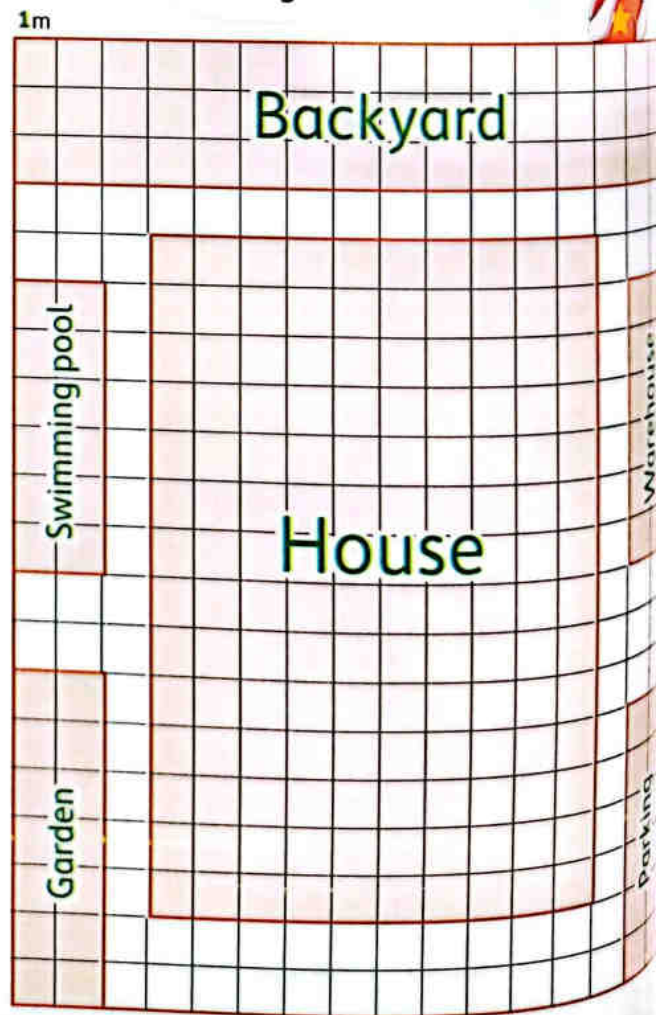


a. What is the area of the backyard?
_____ square meters

b. What is the perimeter of the house?
_____ meters

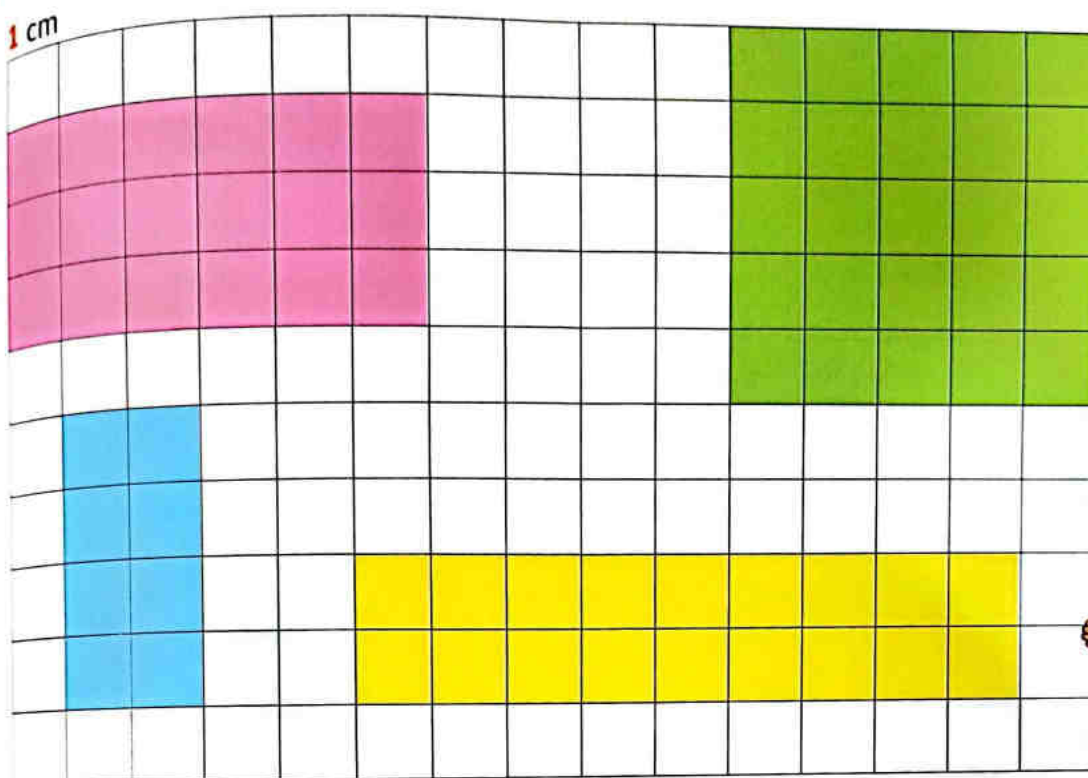
c. Are the area of warehouse and the area of garden equal?
Show your work.

d. Are the perimeter of parking and the perimeter of swimming pool equal?
Show your work.



Complete the table. Then answer.

1 cm



Region	Perimeter in centimeters	Area in square centimeters
Pink	_____	_____
Green	_____	_____
Blue	_____	_____
Yellow	_____	_____

a. What is the color of the greatest region in area ? _____

b. Arrange the perimeters of regions in an ascending order.

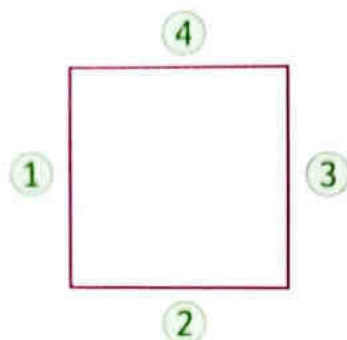
Order is _____ , _____ , _____



5 Estimate. Then use a ruler to measure in centimeters.



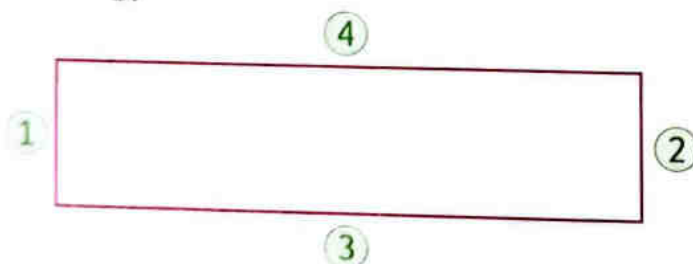
a.



	Side ①	Side ②	Side ③	Side ④	Per.
Estimate					
Measure					

Choose : Your estimation is : ☐ accepted ☐ not accepted

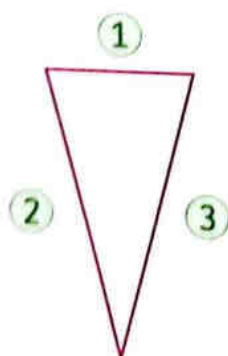
b.



	Side ①	Side ②	Side ③	Side ④	Per.
Estimate					
Measure					

Choose : Your estimation is : ☐ accepted ☐ not accepted

c.



	Side ①	Side ②	Side ③	Per.
Estimate				
Measure				

Choose : Your estimation is : ☐ accepted ☐ not accepted

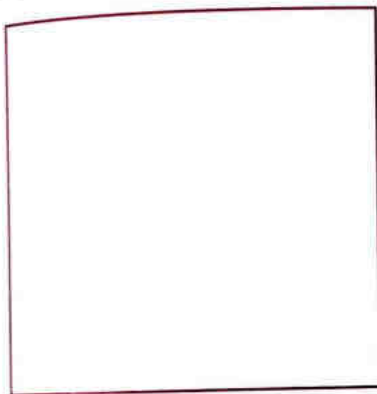
Estimate the perimeter of each of the following polygons.
Then find the actual perimeter in centimeters.

a.



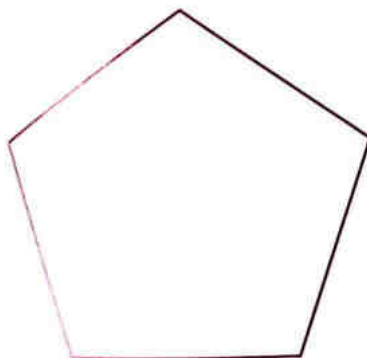
	Perimeter
Estimate	about ____ cm
Measure	____ cm

b.



	Perimeter
Estimate	about ____ cm
Measure	____ cm

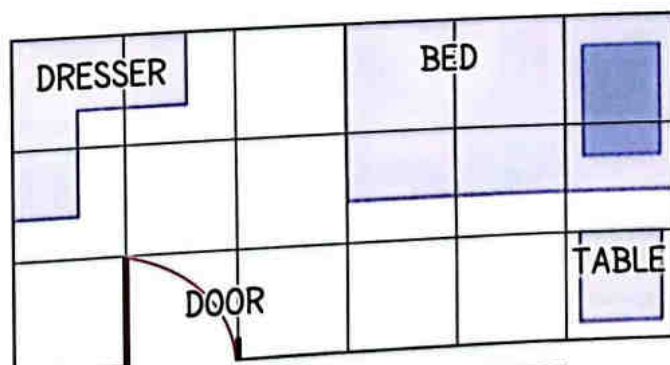
c.



	Perimeter
Estimate	about ____ cm
Measure	____ cm

Challenge

7 Laila wants to put a new desk in her room. She drew a picture of her room to help figure out where it will fit.



Place a smiley face

Does Laila have space for her new desk?
Color where could she put it.

Learn 1 Area of rectangle given its dimensions

Instead of counting square units, you can use a formula to find the area of rectangle.



For example :

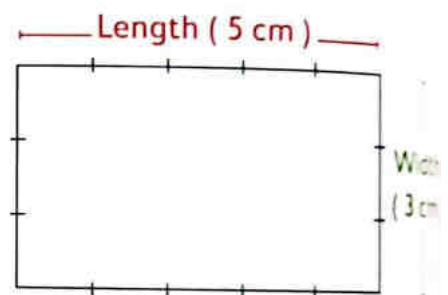
The dimensions of the rectangle are
5 cm (Length) and 3 cm (Width)

$$\text{Area} = \text{Length} \times \text{Width}$$

$$= 5 \times 3$$

$$= 15 \text{ square centimeters}$$

Formula of
area of
a rectangle



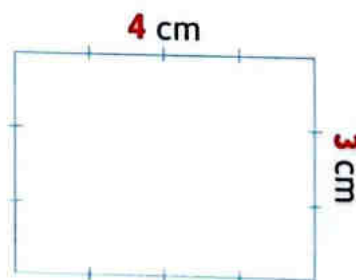
Check



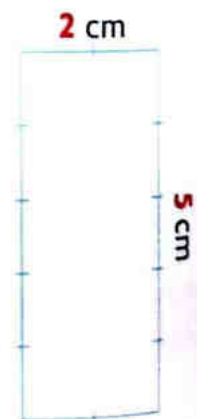
Find the area of each figure.



$$\begin{aligned} \text{Area} &= \quad \times \quad \\ &= \quad \text{square} \\ &\quad \text{centimeters.} \end{aligned}$$



$$\begin{aligned} \text{Area} &= \quad \times \quad \\ &= \quad \text{square} \\ &\quad \text{centimeters.} \end{aligned}$$



$$\begin{aligned} \text{Area} &= \quad \times \quad \\ &= \quad \text{square} \\ &\quad \text{centimeters} \end{aligned}$$

Notes for parents

- Help your child to find the area of a rectangle using formula.

Learn 2

Calculating the area using different strategies

- Ahmed wants to put artificial grass in his garden.
- The garden is a rectangle 5 meters long and 3 meters wide.
- How many square meters of artificial grass does Ahmed need?



- To find how many square meters of artificial grass, find area of the floor.
- There are different strategies to find the area of the rectangle.

Strategy 1

5 columns

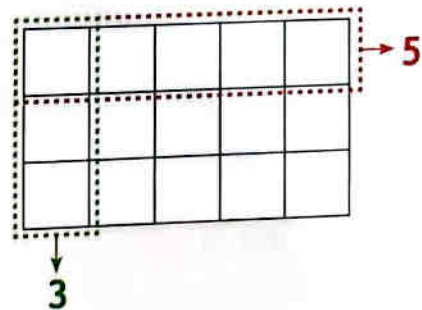
3 rows

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15

Count all of the squares in the array.

Area = 15 square meters

Strategy 2

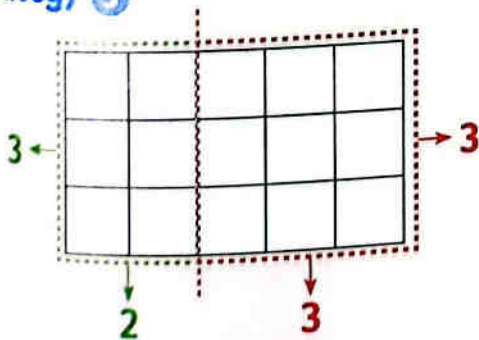


Add

$$5 + 5 + 5 = 15 \text{ or } 3 + 3 + 3 + 3 + 3 = 15$$

Area = 15 square meters

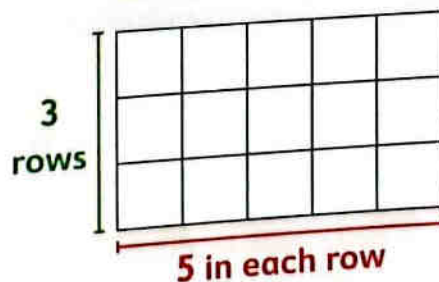
Strategy 3



Split the array into two smaller arrays.
Solve both and add the sums.

$$\begin{aligned} \text{Area} &= 3 \times 5 = (3 \times 2) + (3 \times 3) \\ &= 6 + 9 = 15 \text{ square meters} \end{aligned}$$

Strategy 4



Multiply units "Formula of area of a rectangle".

$$\text{Area} = 3 \times 5 = 15 \text{ square meters}$$

*Help your child to find the area of his/her room.

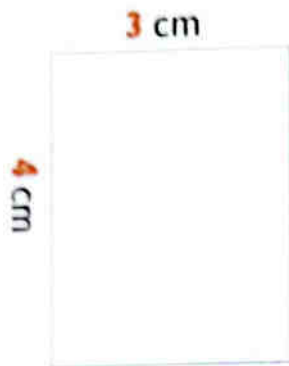
Exercise 25

Finding the area in different strategies

On Lessons 45 & 46

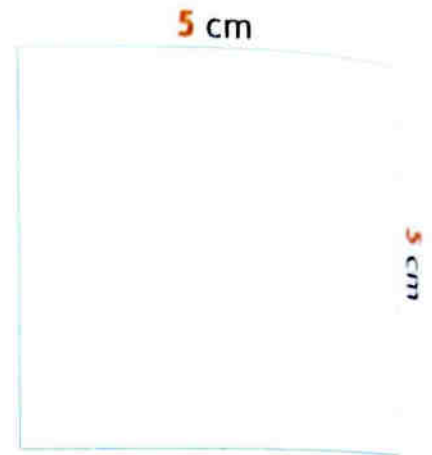
1 Find the area of each figure.

a.



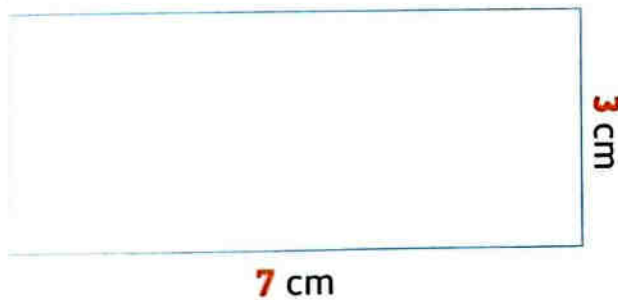
$$\begin{aligned} \text{Area} &= ___ \times ___ \\ &= ___ \text{ square centimeters.} \end{aligned}$$

b.



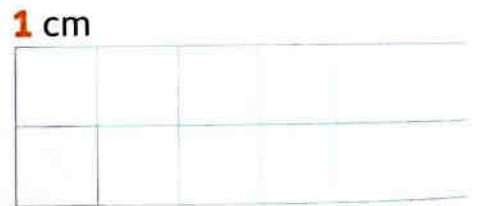
$$\begin{aligned} \text{Area} &= ___ \times ___ \\ &= ___ \text{ square centimeters} \end{aligned}$$

c.



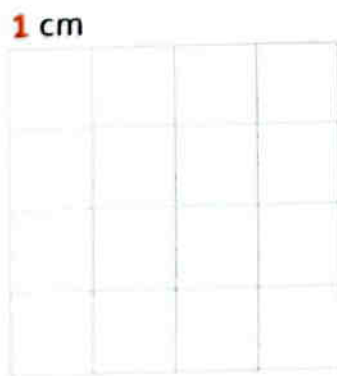
$$\begin{aligned} \text{Area} &= ___ \times ___ \\ &= ___ \text{ square centimeters.} \end{aligned}$$

d.



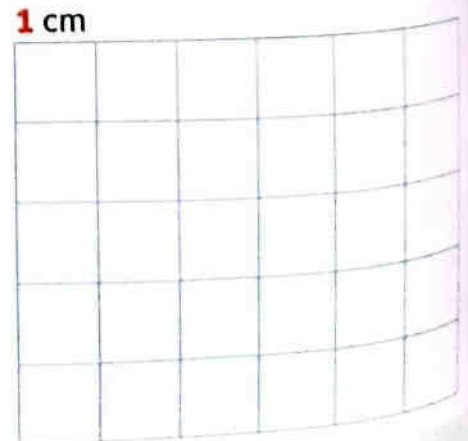
$$\begin{aligned} \text{Area} &= ___ \times ___ \\ &= ___ \text{ square centimeters.} \end{aligned}$$

e.

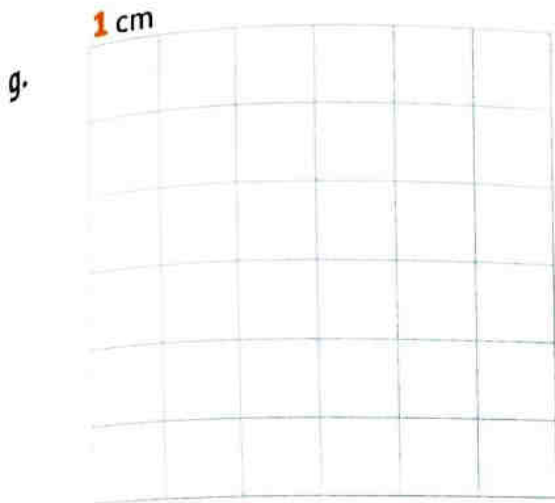


$$\begin{aligned} \text{Area} &= ___ \times ___ \\ &= ___ \text{ square centimeters.} \end{aligned}$$

f.



$$\begin{aligned} \text{Area} &= ___ \times ___ \\ &= ___ \text{ square centimeters.} \end{aligned}$$



Area = $\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}$
 = $\underline{\hspace{1cm}}$ square centimeters.

2 Use a centimeter ruler to measure the side lengths. Then find the area of each figure.

a.

Area = $\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}$
 = $\underline{\hspace{1cm}}$ square centimeters.

b.

Area = $\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}$
 = $\underline{\hspace{1cm}}$ square centimeters.

c.

Area = $\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}$
 = $\underline{\hspace{1cm}}$ square centimeters.

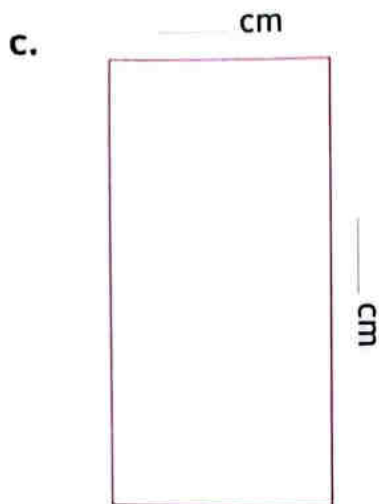
3 Find the area of each figure. Then color the figure with the greatest area in red.

a.

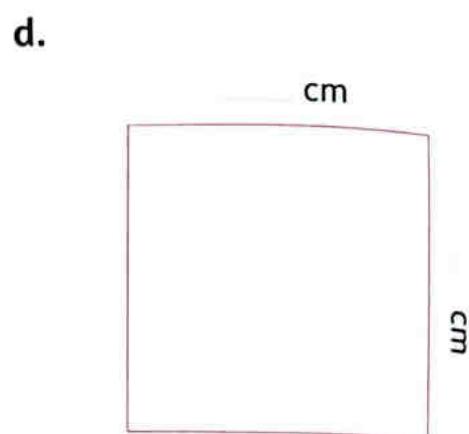
Area = $\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}$
 = $\underline{\hspace{1cm}}$ square centimeters.

b.

Area = $\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}$
 = $\underline{\hspace{1cm}}$ square centimeters.



Area = $\text{---} \times \text{---}$
 = --- square
 centimeters.



Area = $\text{---} \times \text{---}$
 = --- square
 centimeters.

4 Find the space areas in the parking. Then write the name of each main transport below its suitable space.

○ **Car** > 18 square meters.



○ **Motorcycle** < 8 square meters.

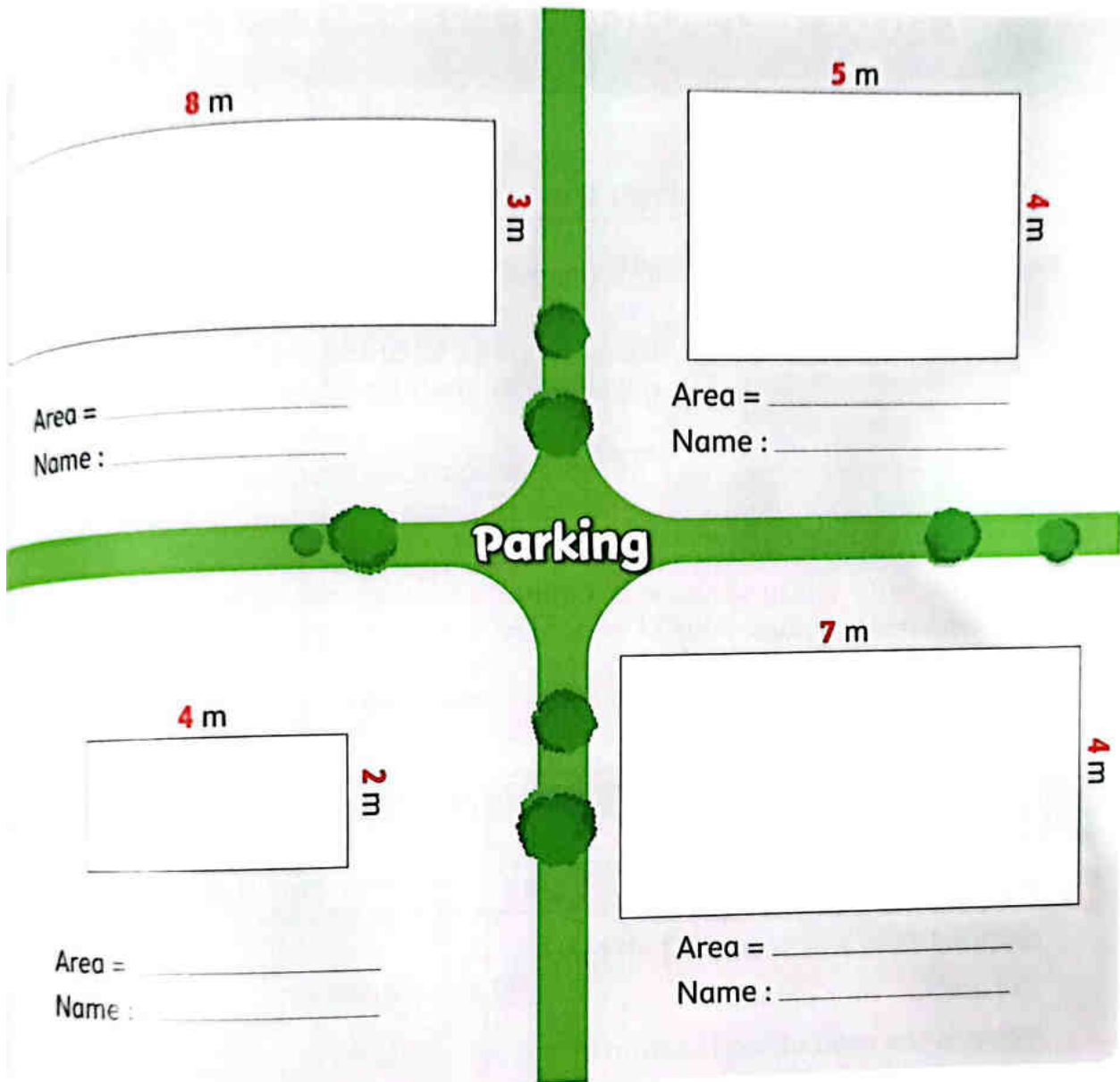


○ **Lorry** < 30 square meters.
 but > 26 square meters.



○ **Bus** > 20 square meters.





3 Find the area of each figure in two ways.

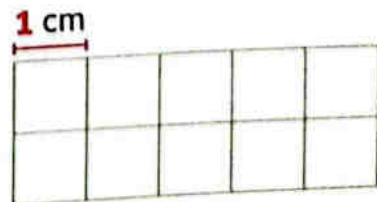
a.

Way 1

Area = _____ square centimeters.

Way 2

Area = _____ square centimeters.



b.

Way 1

Area = _____ square
centimeters.

Way 2

Area = _____ square
centimeters.

5 cm

c.

Way 1

Area = _____ square
centimeters.

Way 2

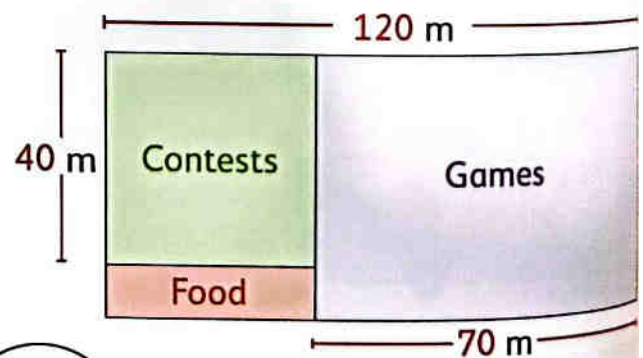
Area = _____ square
centimeters.

You should
measure
lengths
rectangle

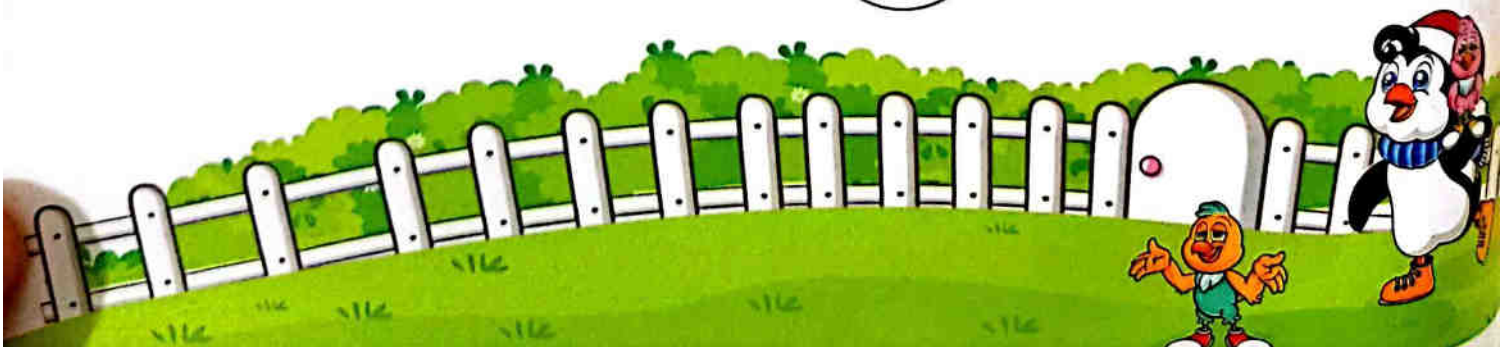


Challenge

- 6 The opposite figure shows how a school field was sectioned off for the end-of-year picnic.
What is the area of food section in square meters ? _____



Place
a smiley
face



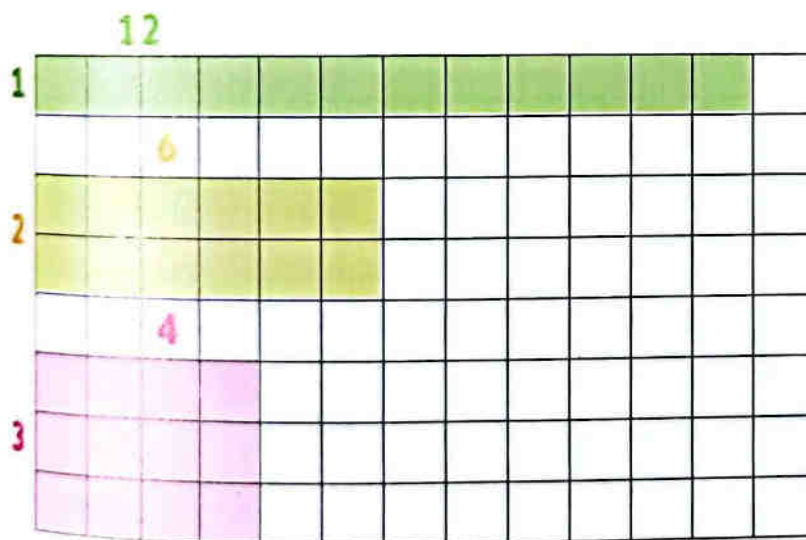
Learn 1 Same area , different perimeter

Amgd wants to plant a rectangular flower garden in his backyard.
The area of the garden has to be **12** square meters , and he wants to use the least amount of fencing possible.

How long should he make each side so that the perimeter of the garden is as small as possible ?



Using the grid below (consider each square side on the grid = **1** meter), draw possible rectangles that have an area of **12** square units , then find the perimeter of each rectangle.



$$\begin{aligned} \text{Perimeter} &= 1 + 12 + 1 + 12 \\ &= 26 \text{ length units} \end{aligned}$$

$$\begin{aligned} \text{Perimeter} &= 2 + 6 + 2 + 6 \\ &= 16 \text{ length units} \end{aligned}$$

$$\begin{aligned} \text{Perimeter} &= 3 + 4 + 3 + 4 \\ &= 14 \text{ length units} \end{aligned}$$

Order the perimeters : $26 > 16 > 14$
14 meters is the smallest perimeter.
So, to have a garden with the smallest perimeter possible Amgd should make a rectangle with sides 3 m, 4 m long.

When you make different rectangles with the same area , the perimeter does not stay the same.

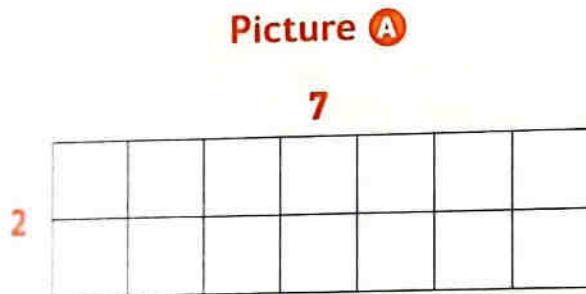


Learn 2 Same perimeter

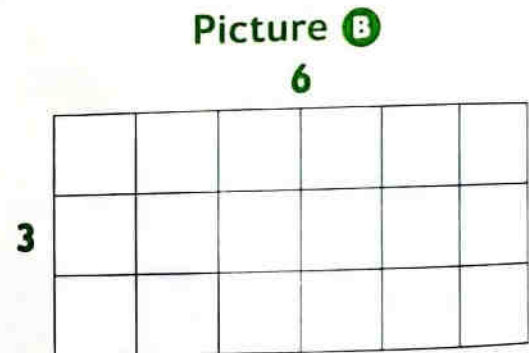
- Shady is framing three pictures with the same perimeter 18 cm
- Does he need the same number of square centimeters of glass for each picture?



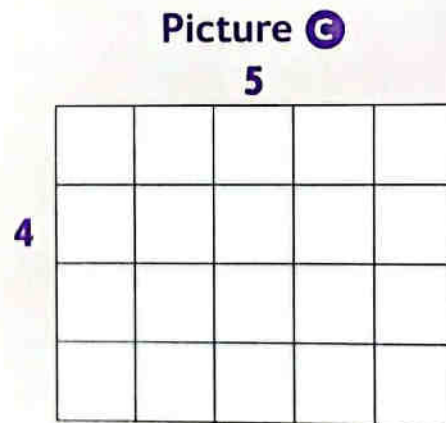
- To find how much glass he needs, find the area of each picture.



Area = 14 square cm



Area = 18 square cm



Area = 20 square cm

When you make different rectangles with the same perimeter, the area does not stay the same.



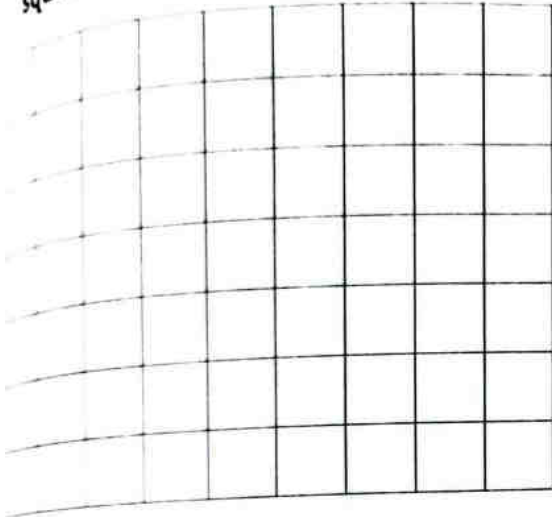
- So,** Shady needs different number of square centimeters of glass.

Notes for parents

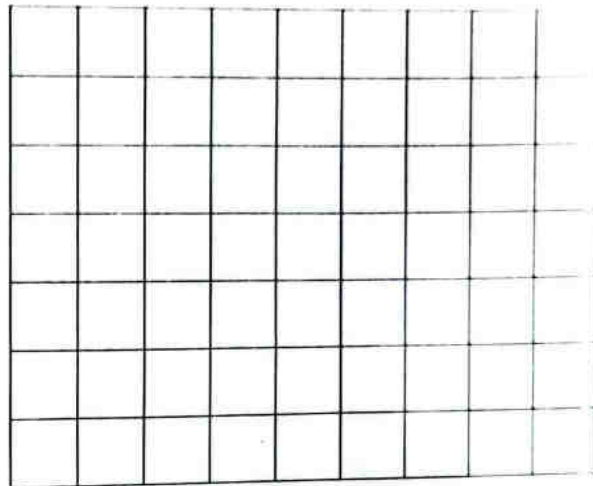
- Help your child to calculate the areas of rectangles using different strategies.



1. Using the grid below, draw two different rectangles have an area of 16 square units. Then find the perimeter of each rectangle.

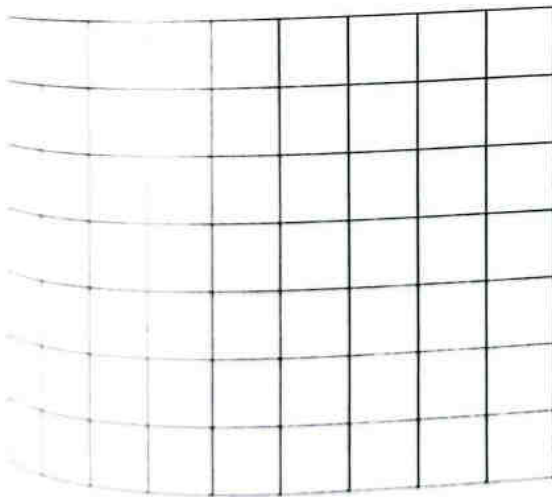


Perimeter = _____

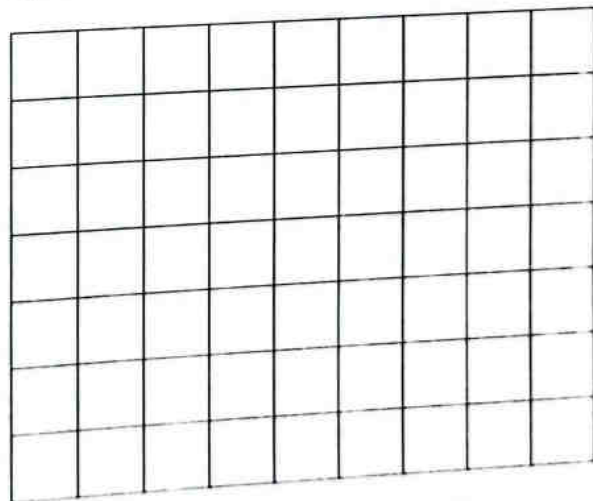


Perimeter = _____

2. Using the grid below, draw two different rectangles have a perimeter of 16 units. Then find the area of each rectangle.



Area = _____



Area = _____

Help your child to draw two rectangles with the same area and the same perimeter.

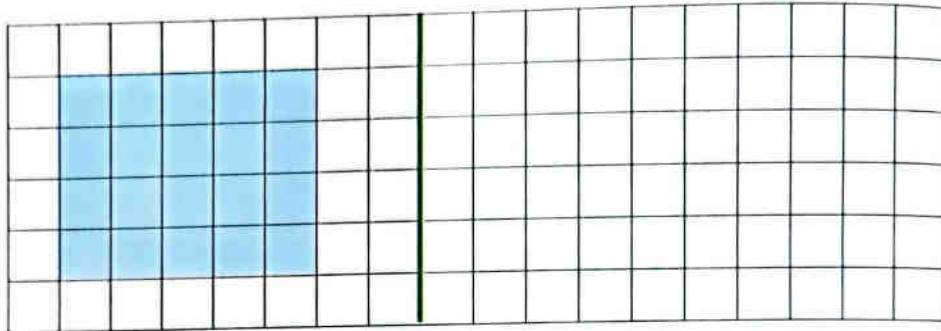
Exercise 26

Relate perimeter and area

On Lessons 47 & 48

- 1 Find the area and the perimeter of the drawn rectangle. Then draw another rectangle with the same area but a different perimeter in each grid and calculate.

a.



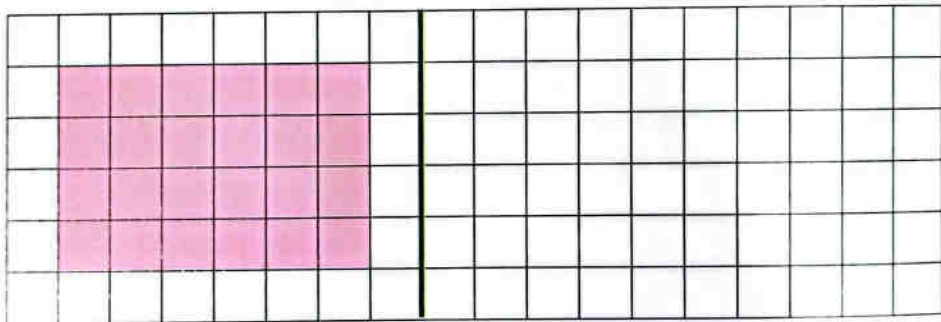
Area = _____

Area = _____

Perimeter = _____

Perimeter = _____

b.



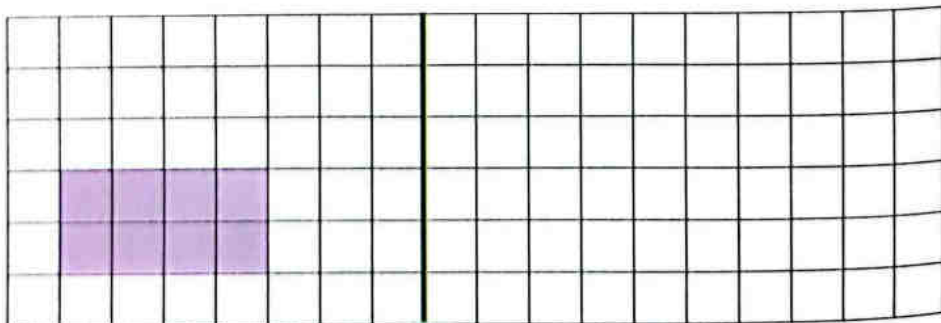
Area = _____

Area = _____

Perimeter = _____

Perimeter = _____

c.



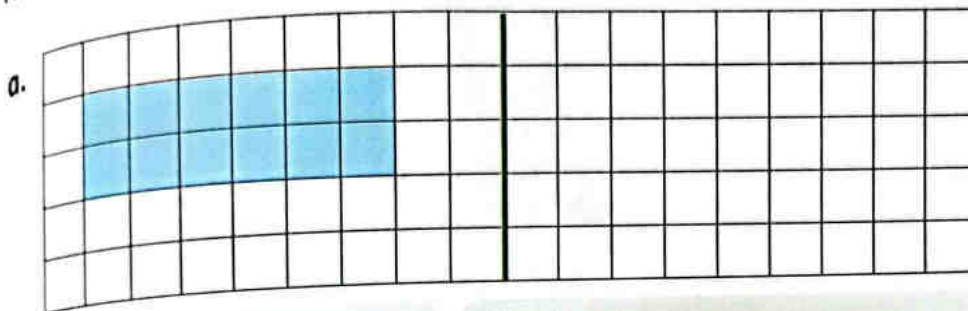
Area = _____

Area = _____

Perimeter = _____

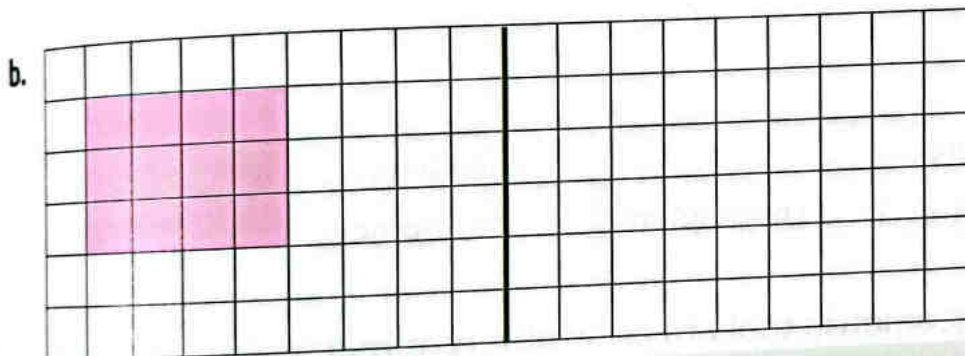
Perimeter = _____

Find the area and the perimeter of the drawn rectangle. Then draw another rectangle with the same perimeter but a different area in each grid and calculate it.



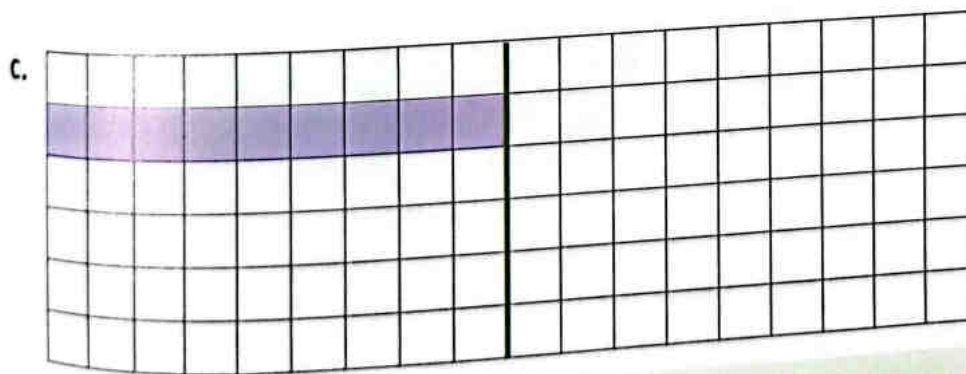
Area = _____
Perimeter = _____

Area = _____
Perimeter = _____



Area = _____
Perimeter = _____

Area = _____
Perimeter = _____



Area = _____
Perimeter = _____

Area = _____
Perimeter = _____

- 3** Use your geometric tools to draw two different rectangles with an area of **10** square centimeters. Then find the perimeter of each one.



Side lengths are _____ , _____
Perimeter = _____ centimeters.

Side lengths are _____ , _____
Perimeter = _____ centimeters.

- 4** Use your geometric tools to draw different rectangles with a perimeter of **22** centimeters. Then find the area of each one.



Side lengths are _____ , _____
Area = _____ square cm

Side lengths are _____ , _____
Area = _____ square cm

5 Draw 4 different rectangles with an area 24 square units. Then complete the table below. The first one is done for you.

24

1

24



	Width (length units)	Length (length units)	Area (square units)	Perimeter (length units)
Rectangle 1	1	24	24	50
Rectangle 2	—	—	—	—
Rectangle 3	—	—	—	—
Rectangle 4	—	—	—	—

Challenge

6 Mariam made a frame of a picture with a perimeter of 18 cm and an area of 20 square cm. What are the lengths of the sides ?

«Draw a figure to show your answer»

The side lengths are :

and

Place
a smiley
face

Learn

Yara wants to put a lace border around her picture of dimensions 3 cm and 5 cm

How long of lace border does she need ?

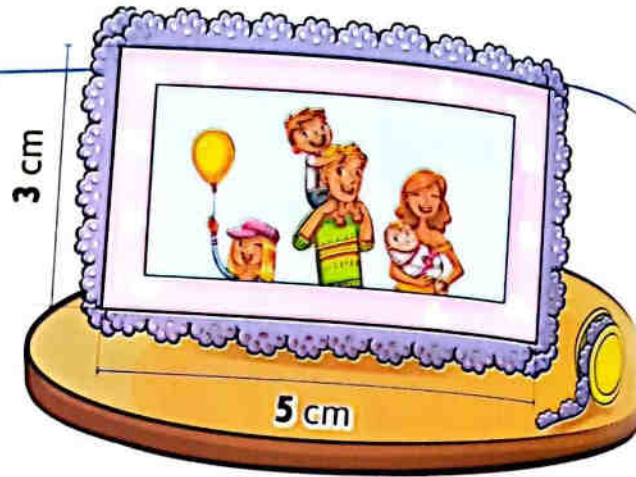
- Determine whether you would find perimeter or area.

Find the perimeter.

- Write a number sentence to solve.

$$\text{Perimeter} = 5 + 3 + 5 + 3 = 16 \text{ cm}$$

So, Yara needs **16 cm** of lace border.



I can use different ways to find the perimeter.



Wael's family tiled the floor in their front hall of dimensions 6 m and 4 m

They used square tiles that measure 1 m on each side.

How many tiles did they use ?

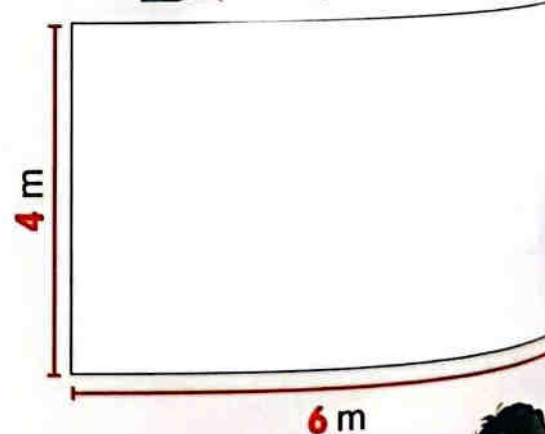
- Determine whether you would find perimeter or area.

Find the area.

- Write a number sentence to solve.

$$\text{Area} = 6 \times 4 = 24 \text{ square meters}$$

So, they used **24 square meters** of tiles.



I can use different ways to find the area.



Example 1

Hossam is painting one wall in his bedroom.
The wall measures 7 m long and 3 m wide.
What is the area of the wall ?

Solution ✓

The area of the wall = $7 \times 3 = 21$ square meters



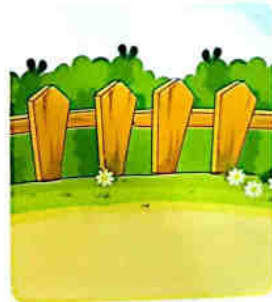
Example 2

A farmer wants to buy fencing to go around his garden.
The garden is 27 m long by 13 m wide.
How much fencing will be need ?

Solution ✓

* You would find the perimeter.

The perimeter = $27 + 13 + 27 + 13 = 80$ m



Check



Solve each of the following.

* Mona built a backyard pen for her cat.

The length of the pen was 2 meters and the width was 1 meter.

What is the area of the pen ?

* Hala wants to make a frame of a picture
with 18 cm length and 12 cm width.

What is the length of the frame ?

* Help your child to know the meaning of each story problem and when he / she will calculate the area and perimeter.

Exercise 27

Area and perimeter story problem

On Lesson 49

- 1** Read and solve each of the following story problems. You can draw a figure for help.

- a. Mina built a backyard pen for his puppy.

The length of the pen was 3 meters and the width was 2 meters.

What is the area of the pen ?



- b. Marian wants to tile the kitchen floor.

If the floor is 4 meters long and 3 meters wide.

How many one meter square tiles will she need ?



- c. A book had a length of 20 cm and a width of 12 cm

What is the perimeter of the book ?



- d. Omar is a farmer. His farm is 250 m long and 150 m wide. He wants to install a fence all around his farm.

What is the length of the fence ?



- e. Lina's square bedroom has a length of 4 meters.
How much carpet will Lina need to cover the floor of her bedroom ?



- f. Basma orders a party bannar for his brother's birthday party. The length and width of the bannar are 7 m and 2 m respectively. What is the area of the party banner ?



- g. A farmer needs to make a fence around his garden. The garden is 20 m long and 15 m wide. What is the length of the fence ?



- h. Nora is buying a cover for her patio table. If the table is 2 m on all sides What is the area of the cover ?



- i. Hany is painting one wall in his bedroom. The wall measures 7 m long and 3 m wide. What is the area of the wall ?



- j. A rectangle with dimensions 4 units and 6 units has an area 24 square units. State true or false.

- k. A square with side length 6 cm has a greater area than a rectangle with length 9 cm and width 4 cm. State true or false.



Challenge

- 2 Kareem's school playground is 75 m long and 40 m wide. Ali's school playground is 90 m long and 30 m wide. Kareem and Ali finished a round jogging around their school playgrounds. Who jogged longer ? Explain your answer.
-
-



Learn

Multiplying by multiples of 10

How to find the product of 3×40 .

It is easy to multiply
whole numbers
by multiples of 10
using the following
strategies.

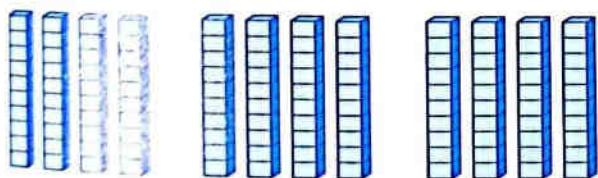
Notice that

$3 \times 4 = 12$
is a multiplication fact



First strategy

Draw place value blocks which
represent 3 groups of 40



3 groups of 40

$$3 \times 4 \text{ tens} = 120$$

$$3 \times 40 = 120$$

Math tip

You can count by 10s
to find the product.



Second strategy

Break apart the multiples of 10 as two
factors (the number $\times 10$)

then $40 = 4 \times 10$

$$\begin{aligned} \text{So, } 3 \times 40 &= (3 \times 4) \times 10 \\ &= 12 \times 10 = 120 \end{aligned}$$

Math tip

You can multiply
 $3 \times 4 = 12$
and put the zero at
the end "120"

$$\begin{array}{c} \times \quad = \\ 3 \times 40 = 120 \end{array}$$



Example

Complete.

a. 2×4 tens = _____ tens = _____

c. $3 \times 90 =$ _____

e. $8 \times$ _____ = 240

b. $4 \times 70 = (\quad \times \quad) \times 10 = \quad \times \quad =$

d. $20 + 20 + 20 = \quad \times 20 =$

Solution

a. 2×4 tens = 8 tens = 80

b. $4 \times 70 = (\underline{4} \times \underline{7}) \times 10 = \underline{28} \times 10 = \underline{280}$

c. $3 \times 90 = \underline{270}$

d. $20 + 20 + 20 = \underline{3} \times 20 = \underline{60}$

e. $8 \times \underline{30} = 240$

Check

Multiply.

a. $2 \times 70 =$ _____

c. $60 \times 3 =$ _____

e. $9 \times 50 =$ _____

b. $5 \times 20 =$ _____

d. $80 \times 5 =$ _____

f. $60 \times 8 =$ _____



Exercise 28

Multiplying by multiples of 10

On Lesson 50

Complete the following as the example. You may use place value blocks to help.

Example

$$3 \times 2 \text{ tens} = \boxed{6} \text{ tens}$$

$$3 \times 20 = \boxed{60}$$

a. $4 \times 3 \text{ tens} = \boxed{} \text{ tens}$

$$4 \times 30 = \boxed{}$$

b. $2 \times 5 \text{ tens} = \boxed{} \text{ tens}$

$$2 \times 50 = \boxed{}$$

c. $3 \times 6 \text{ tens} = \boxed{} \text{ tens}$

$$3 \times 60 = \boxed{}$$

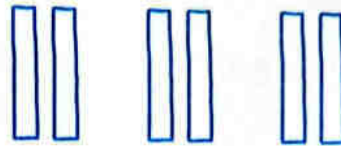
d. $4 \times 7 \text{ tens} = \boxed{} \text{ tens}$

$$4 \times 70 = \boxed{}$$

e. $6 \times 4 \text{ tens} = \boxed{} \text{ tens}$

$$6 \times 40 = \boxed{}$$

Work area



2 Complete the following. Solve the problems as the example.

Example

$$2 \times 40$$

$$= (2 \times 4) \times 10 = 8 \times 10 = 80$$

How can you use 2×4 to help you find 2×40 ?



a. 4×50

$$= (\quad \times \quad) \times 10 = \quad \times \quad = \quad$$

b. 8×20

$$= (\quad \times \quad) \times 10 = \quad \times \quad = \quad$$

c. 7×70

$$= (\quad \times \quad) \times 10 = \quad \times \quad = \quad$$

d. 9×90

$$= (\quad \times \quad) \times 10 = \quad \times \quad = \quad$$

e. 3×60

$$= (\quad \times \quad) \times 10 = \quad \times \quad = \quad$$

f. 4×90

$$= (\quad \times \quad) \times 10 = \quad \times \quad = \quad$$

g. 6×20

$$= (\quad \times \quad) \times 10 = \quad \times \quad = \quad$$

h. 7×40

$$= (\quad \times \quad) \times 10 = \quad \times \quad = \quad$$

3 Solve the following problems using any strategy.

a. $5 \times 30 =$

b. $2 \times 60 =$

c. $9 \times 40 =$

d. $7 \times 20 =$

e. $8 \times 60 =$

f. $3 \times 30 =$

g. $6 \times 50 =$

h. $7 \times 40 =$

i. $4 \times 80 =$

j. $80 \times 2 =$

k. $60 \times 3 =$

l. $70 \times 8 =$

m. $90 \times 2 =$

n. $50 \times 5 =$

o. $40 \times 5 =$

Choose the correct answer.



- a. 7×3 tens = _____ (73 or 21 or 210 or 730)
 b. 5×4 tens = $(5 \times \text{_____}) \times 10$ (5 or 4 or 20 or 200)
 c. 3 groups of 50 = _____ (350 or 15 or 1,500 or 150)
 d. $70 \times 1 = \text{_____}$ tens. (7 or 70 or 700 or 701)
 e. $90 \times 0 = \text{_____}$ (0 or 9 or 90 or 900)
 f. $40 \times 8 = \text{_____}$ (32 or 320 or 408 or 3200)
 g. $(3 \times 4) \times 10 = 3 \times \text{_____}$ (14 or 140 or 120 or 40)
 h. $4 \times 60 = 3 \times \text{_____}$ (8 or 80 or 60 or 240)

Complete.

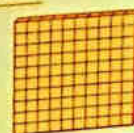
- a. $3 \times 2 \times 10 = \text{_____}$
 b. $4 \times 5 \times 10 = \text{_____}$
 c. $5 \times 9 \times 10 = \text{_____}$
 d. $7 \times 8 \times 10 = \text{_____}$
 e. $2 \times \text{_____}$ tens = 40
 f. $5 \times \text{_____}$ tens = 350
 g. $9 \times \text{_____}$ tens = 180
 h. $6 \times \text{_____}$ tens = 120
 i. $4 \times \text{_____} \times 10 = 120$
 j. $2 \times \text{_____} \times 10 = 140$
 k. $\text{_____} \times 3 \times 10 = 90$
 l. $\text{_____} \times 6 \times 10 = 60$
 m. $3 \times \text{_____} = 150$
 n. $\text{_____} \times 40 = 80$
 o. $7 \times \text{_____} = 210$
 p. $\text{_____} \times 50 = 250$
 q. $4 \times \text{_____} = 360$
 r. $\text{_____} \times 60 = 180$



Challenge

Solve the problem : 3×200

Hint



= 100

Place a smiley face



Assessment Chapter 5

1 Find the perimeter and the area of each of the following shapes.

a.



Perimeter = _____ cm

Area = _____ square centimeters

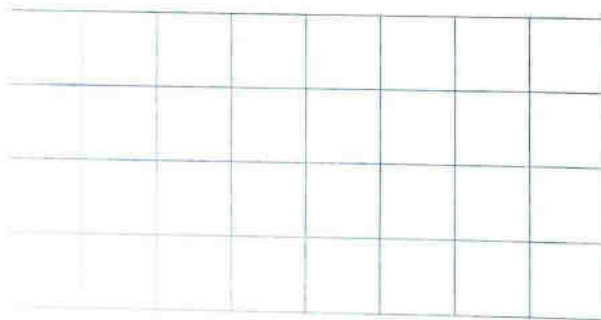
b.



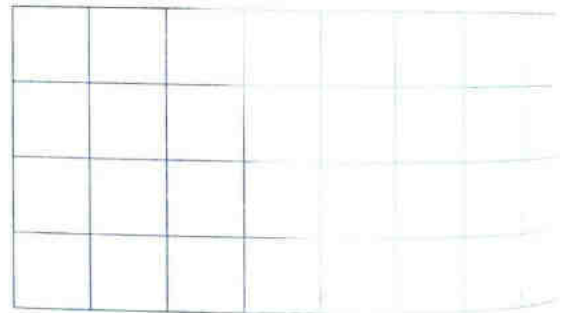
Perimeter = _____ cm

Area = _____ square centimeters

2 Draw a rectangle of perimeter 10 length units in the grid.



3 Draw a rectangle of area 8 square units in the grid.



4 Join the equal products.

a. 3×40

4×40

b. 9×20

6×10

c. 30×2

6×30

d. 2×80

60×2

5 Mona is sewing a border on a baby blanket. The length of the blanket is 40 cm and the width is 30 cm. How long will the border be?



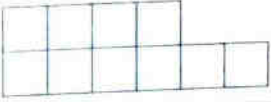

Complete.


a. 30 thousands and 3 =

b. , , , , , (in the same pattern)

c. $27 \div 3 =$

d. The hexagon is a polygon which has _____ sides.

e. The area of the shape  equals 

f. The perimeter of the rectangle  3 cm is _____ cm.
7 cm

g. $7 \times 30 =$

Choose the correct answer.

a. 15 thousands 51 hundreds. ($<$ or $=$ or $>$)

b. 6×3 tens 9×2 tens. ($<$ or $=$ or $>$)

c. 1 m = _____ cm

d. The area of a rectangle with 5 cm long and 2 cm wide equals _____ square centimeters. (1 or 10 or 100 or 1,000)
(7 or 14 or 10 or 100)

e. The value of the digit 6 in the number 26,345 is _____ (6 or 60 or 600 or 6,000)



Put (\checkmark) to the correct statement or (\times) to the incorrect statement.

a. A rectangle with 5 units wide and 10 units length has an area of 50 square units. ()

b. $70 + 300 + 5,000 + 10,000 = 15,370$ ()

c. 4 rows of 5 = $4 + 4 + 4 + 4$ ()

d. 49 is a multiple of 7  3 cm and  2 cm have ()

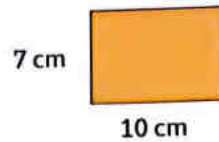
e. The two rectangles  3 cm and  2 cm have the same area but different perimeter. ()

4 Match.

a. 3 groups of 50

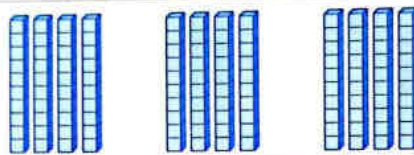
7 tens

b. Area of the rectangle



30×5

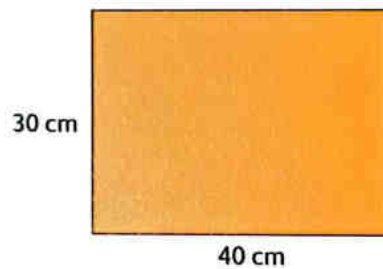
c.



70×2

d.

Perimeter of the rectangle

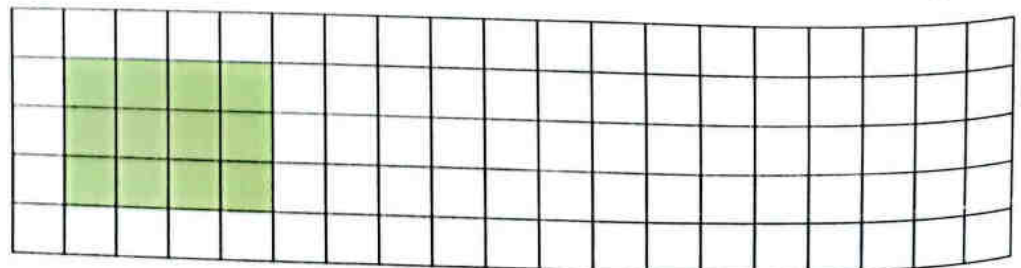


3×40



5 Sameh wants to make a wooden frame around the window of his room which is 3 m long and 1 m wide , so what length of wood does he need for the frame?

6 Draw a rectangle of the same perimeter of the drawn rectangle in the grid



Write the time.

a.



It is :

:

b.

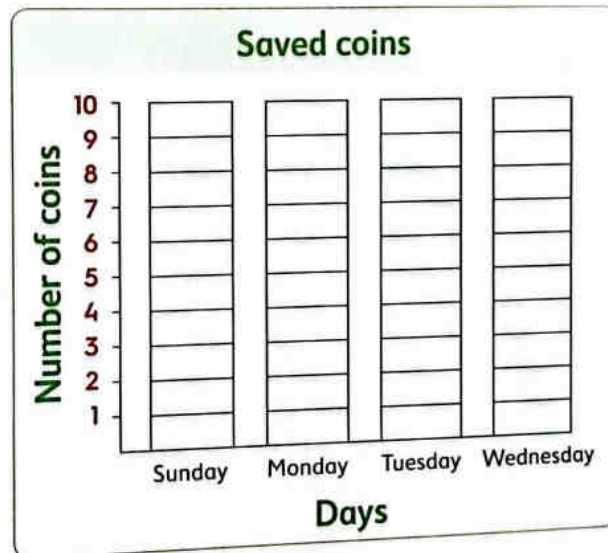


It is :

:

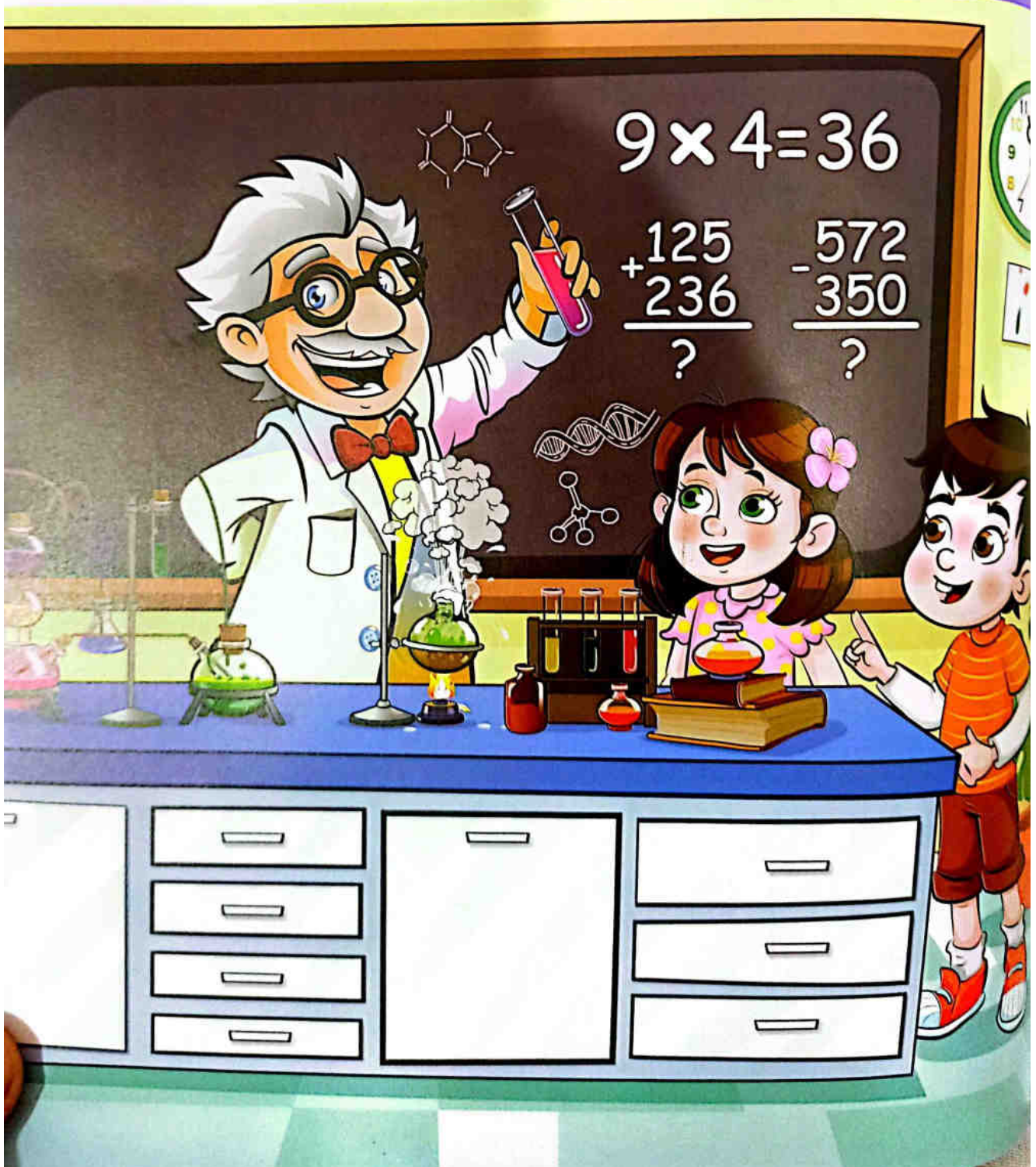
Count the tallies. Write the total. Color the graph to show the data.

Saved coins		
Day	Tally	Number
Sunday		—
Monday	/	—
Tuesday	/	—
Wednesday	/	—



CHAPTER

6



Learn

- Multiplication facts and place value patterns can help you multiply.

For example :

If you know $2 \times 4 = 8$, then you can use mental math to find :

$$2 \times 40, 2 \times 400 \text{ and } 2 \times 4,000$$

$$2 \times 4 = 8 \leftarrow \text{multiplication fact}$$

$$2 \times 40 = 80$$

$$2 \times 400 = 800$$

$$2 \times 4,000 = 8,000$$

Math tip

As the numbers of zeroes in the factor increases, the number of zeroes in the product increases.



Multiplication strategies

How to find 5×30

Here are some strategies to use.

These strategies can be used when multiply by hundreds and thousands.

**First strategy**

Use the multiplication fact and patterns to help you multiply.

Where $\rightarrow 5 \times 3 = 15$

Then $\rightarrow 5 \times 30 = 150$

Second strategy

Break apart the multiples of 10 as two factors " $30 = 3 \times 10$ "

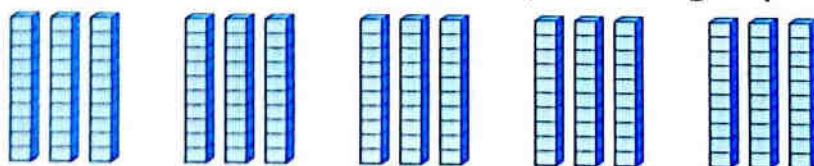
$$5 \times 30$$

$$= (5 \times 3) \times 10$$

$$= 15 \times 10 = 150$$

Third strategy

Draw place value blocks which represent 5 groups of 30



$$5 \times 3 \text{ tens} = 15 \text{ tens}$$

$$5 \times 30 = 150$$

Math tip

You can count by 10 s on drawings to find the product.





1. If you know $7 \times 2 = 14$ find the following.

7×20

7×200

$7 \times 2,000$

2. Find the following products using any strategies.

6×20

4×50

3×80

*Ask your child to find the product of 3×30 using strategies.

Exercise 29

Multiplication strategies

On Lesson 51

1 Complete the following.

a.

2×3 _____
 2×30 _____
 2×300 _____
 $2 \times 3,000$ _____

b.

7×4 _____
 7×40 _____
 7×400 _____
 $7 \times 4,000$ _____

c.

5×6 _____
 5×60 _____
 5×600 _____
 $5 \times 6,000$ _____

2 Find the following products.

a. $3 \times 40 =$ _____

b. $2 \times 50 =$ _____

c. $4 \times 60 =$ _____

d. $7 \times 30 =$ _____

e. $5 \times 50 =$ _____

f. $4 \times 80 =$ _____

g. $6 \times 700 =$ _____

h. $9 \times 300 =$ _____

i. $5 \times 100 =$ _____

j. $3 \times 200 =$ _____

k. $4 \times 5,000 =$ _____

l. $6 \times 3,000 =$ _____

m. $2 \times 9,000 =$ _____

n. $5 \times 8,000 =$ _____

o. $8 \times 7,000 =$ _____

3 Match.

a. 4×20

b. 3×60

c. 5×70

d. 8×30

240

350

80

180

1 Complete.

a. $3 \times \quad = 150$
 $\times 500 = 4,500$
 c. $\times 2,000 = 8,000$
 e. $\quad = 1,400$
 g. $7 \times \quad$

b. $\quad \times 30 = 210$
 d. $\quad \times 600 = 1,200$
 f. $9 \times \quad = 27,000$
 h. $1 \times \quad = 4,000$

3 Answer the following problems.

a. How many sheets are in 3 notepads?



b. How many hats are in 4 bags?



c. How many stickers are in 5 packs?



d. Amir bought 3 books to read.
 Each book costs 40 pounds.
 How much did Amir pay?



e. A fruit seller sells every day 60 kilograms of fruit.
 How many kilograms does the fruit seller sell in 4 days?



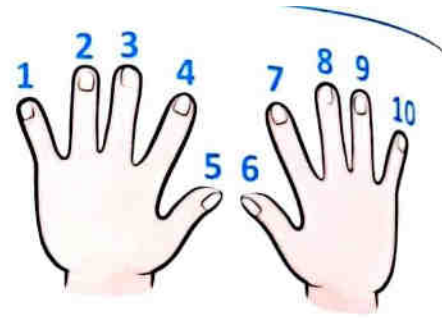
Challenge

6 Mr. Marwan's class makes puppets for a finger play. There are 6 groups of 5 students in the class. Students will make a puppet for each finger. Answer.

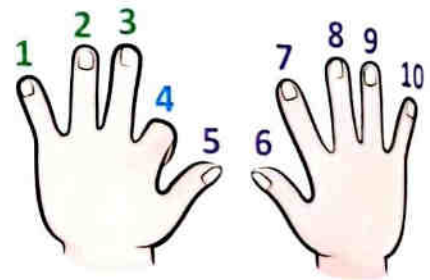
- How many students in Mr. Marwan's class?
- How many puppets will each group make?
- How many puppets for all the class?

Place a smiley face

- Put both hands on your desk, palms down. Mentally number your fingers from left to right.



- To find 4×9 , bend down finger number 4. Fingers to the left of the bent finger show the number of tens in the product.
- Fingers to the right of the bent finger show the number of ones in the product.

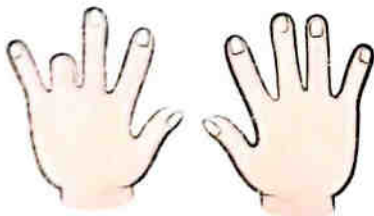


$$4 \times 9 = 36$$

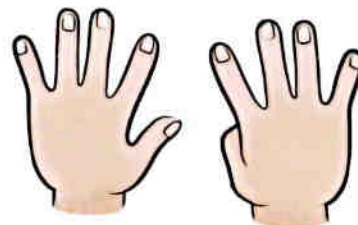
Check



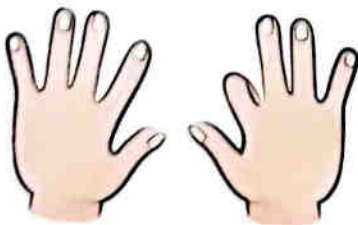
Solve the following by using figures.



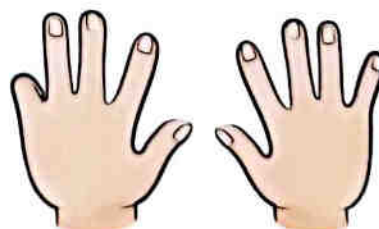
$$2 \times 9 = \underline{\quad}$$



$$6 \times 9 = \underline{\quad}$$



$$7 \times 9 = \underline{\quad}$$



$$1 \times 9 = \underline{\quad}$$



Learn 2

List of equations strategy

What's the pattern?

Bassem and Sarah must find 8×9 . They look for patterns enable to help.

9s facts

$$1 \times 9 = 9$$

$$2 \times 9 = 18$$

$$3 \times 9 = 27$$

$$4 \times 9 = 36$$

$$5 \times 9 = 45$$

$$6 \times 9 = 54$$

$$7 \times 9 = 63$$

$$8 \times 9 = ?$$



The ones digit goes down by 1 each time.
So the next ones digit is 2.
The tens digit goes up by 1 each time. So the next tens digit is 7.
So, $8 \times 9 = 72$

I see a different pattern.
The tens digit is 1 less than the first factor.
The digits of the product add up to 9

$$\begin{array}{l} 8 - 1 = 7 \\ 8 \times 9 = 72 \\ 7 + 2 = 9 \end{array}$$



Multiples of 9 song

Notice that :

The sum of the tens and ones digits in each product is 9

$$9 \times 2 = 18, 1 + 8 = 9$$

$$9 \times 5 = 45, 4 + 5 = 9$$

$$9 \times 7 = 63, 6 + 3 = 9$$

Check



Solve the following by using pattern.

$$3 \times 9 = \square$$

$$9 \times 4 = \square$$

$$9 \times 6 = \square$$

$$5 \times 9 = \square$$

$$7 \times 9 = \square$$

$$9 \times 9 = \square$$



*Ask your child to find the product 7×9 using pattern.

Learn 3 120-chart strategy

Complete coloring
skip-count
forward by 9s



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

Notice the diagonal
pattern of products of
multiplying by 9 :
9, 18, 27, 36, 45, 54, 63, 72, 81



Check



Complete.

45, 54, _____, 72.

18, 27, _____, _____.

63, 72, _____, _____.

9, _____, 27, _____.

36, 45, _____, _____.

27, _____, _____, 54.



Notes for parents

- Ask your child to skip-counting forward by 9's.

Learn 4 Ten facts strategy



Find : $4 \times 9 = ?$

First

You can think of the problem as

$$4 \times 10 = 40$$



Second

Subtract one of the 4s

$$\begin{array}{r} 40 \\ - 4 \\ \hline 36 \end{array}$$

Check



1. To find : $8 \times 9 = ?$ Complete.

$$8 \times 10 = \underline{\hspace{2cm}}$$

Then $\underline{\hspace{2cm}} - 8 = \underline{\hspace{2cm}}$

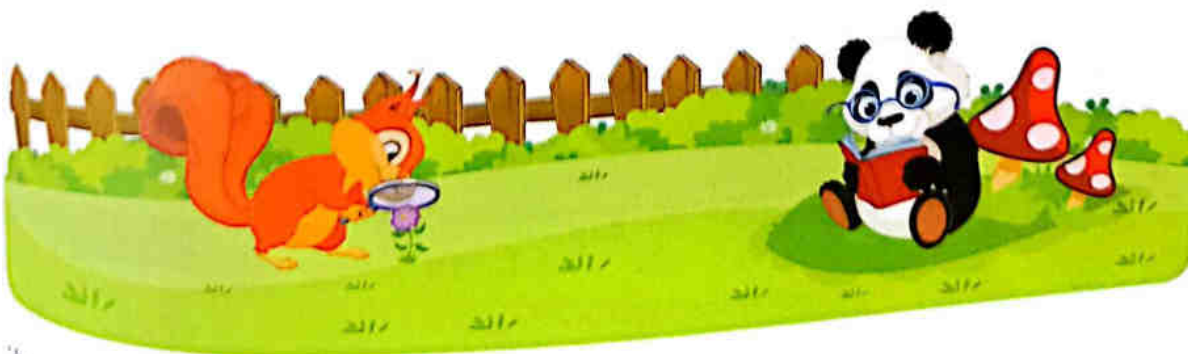
Then $8 \times 9 = \underline{\hspace{2cm}}$

2. To find : $5 \times 9 = ?$ Complete.

$$5 \times 10 = \underline{\hspace{2cm}}$$

Then $\underline{\hspace{2cm}} - 5 = \underline{\hspace{2cm}}$

Then $5 \times 9 = \underline{\hspace{2cm}}$



Ask your child to find the product of 10×10 using ten fact strategy.

Exercise 30

Multiplying by 9 using different strategies

On Lesson 52

1 Find the product using different strategies.

a. $3 \times 9 =$ _____

c. $6 \times 9 =$ _____

e. $9 \times 5 =$ _____

g. $1 \times 9 =$ _____

i. $9 \times 7 =$ _____

b. $2 \times 9 =$ _____

d. $4 \times 9 =$ _____

f. $9 \times 8 =$ _____

h. $0 \times 9 =$ _____

j. $9 \times 10 =$ _____



2 Join.

a. 7×9

b. 72

c. 4×9

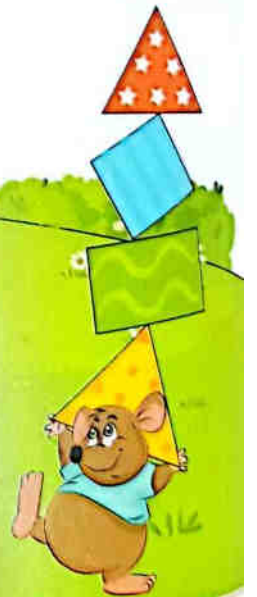
d. 45

36

9×5

63

9×8



3 Complete in the same pattern.

a. $72, 81, \quad, 99.$

c. $45, 54, \quad, \quad.$

e. $36, 27, \quad, \quad.$

b. $27, 36, \quad, \quad.$

d. $9, 18, 27, \quad, \quad.$

f. $18, \quad, \quad, 45.$



Complete.

a. $\quad \times 9 = 36$	b. $9 \times \quad = 81$	c. $\quad \times 9 = 18$
d. $9 \times \quad = 27$	e. $\quad \times 9 = 9$	f. $9 \times \quad = 54$
g. $\quad \times 9 = 72$	h. $9 \times \quad = 63$	i. $\quad \times 9 = 0$
j. $9 \times \quad = 45$	k. $\quad \times 9 = 90$	

5 Find the product.

a. $20 \times 9 = \boxed{\quad}$	b. $9 \times 50 = \boxed{\quad}$	c. $300 \times 9 = \boxed{\quad}$
d. $9 \times 600 = \boxed{\quad}$	e. $4,000 \times 9 = \boxed{\quad}$	f. $9 \times 8,000 = \boxed{\quad}$

6 Choose the correct answer.

a. $9 \times 4 \boxed{\quad} 6 \times 6$

b. $9 \times 20 \boxed{\quad} 100 - 80$

c. $9 \times 2 = 3 \times \quad$

d. $9 \times 13 = (9 \times 10) + (9 \times \quad)$

e. $400 + 50 = 9 \times \quad$

f. $6 \times 9 = \quad$

g. $9 \times 0 = 9 - \quad$

(< or = or >)

(< or = or >)

(4 or 5 or 6)

(2 or 3 or 4)

(5 or 50 or 500)

(45 or 54 or 63)

(1 or 0 or 9)



Place
a smiley
face

Lesson 53

Addition and multiplication facts

Learn

- Here are some addition and multiplication facts will help you to solve addition and multiplication problems.

Adding to zero

The sum of zero and any number is that number.

Example : $0 + 3 = 3$

Adding to 1

The sum of 1 and any number is the number which just comes after.

Example : $1 + 3 = 4$

Adding in any order

Addends can be added in any order and the sum does not change.

Example : $3 + 2 = 5$
 $2 + 3 = 5$

Doubling numbers

Adding the same number twice is doubling it (multiplying by 2).

Example : $3 + 3 = 2 \times 3$
 $6 = 6$

Multiplying by zero

The product of zero and any number is zero.

Example : $0 \times 3 = 0$

Multiplying by 1

The product of 1 and any number is that number.

Example : $1 \times 3 = 3$

Multiplying in any order

Factors can be multiplied in any order and the product does not change.

Example : $3 \times 2 = 6$
 $2 \times 3 = 6$

Multiplying big numbers

Break apart big numbers into two smaller numbers.

Example : 6×7
 $= (6 \times 5) + (6 \times 2)$
 $= 30 + 12$
 $= 42$



Notes for parents

- Help your child to recognize the facts of addition and multiplication and ask him/her to explain how they similar or different.

Match the equal results.

a. $4 + 0$

b. 3×4

c. $0 + 0$

d. $3 + 4$

e. $4 + 4$

4×3

$4 + 3$

4×1

2×4

2×0

Use addition or multiplication facts to find results.

a. $5 \times 1 =$

b. $6 + 0 =$

c. $8 \times 9 =$

d. $2 \times 2 =$

e. $3 + 7 =$

f. $9 \times 0 =$

g. $10 + 5 =$

h. $6 \times 4 =$

i. $5 + 6 =$

j. $6 + 6 =$

k. $2 \times 10 =$

l. $0 \times 0 =$

m. $5 + 10 =$

n. $1 \times 8 =$

o. $4 \times 10 =$

p. $0 + 10 =$

q. $4 \times 5 =$

r. $9 + 2 =$

s. $1 \times 1 =$

t. $7 + 7 =$

u. $1 + 6 =$

v. $9 \times 9 =$

w. $10 \times 0 =$

x. $5 + 5 =$

y. $8 + 1 =$

z. $1 \times 2 =$



3 Check the following problems if add or multiply. Find the results.

- a. Amgad bought 3 toys. Each toy costs 5 pounds.
How much money did Amgad pay ?

Solve : _____

Check

Add

Multiply

- b. Sarah read 4 books in a month. In the next month she read 5 books.
How many books did she read in the two months ?

Solve : _____

Check

Add

Multiply

- c. Youssef has 5 sets of coloring pencils. Each set has 6 pencils.
How many pencils does Youssef have in all ?

Solve : _____

Check

Add

Multiply

4 Complete the missing numbers.

a. $3 \times \underline{\hspace{2cm}} = 7 \times 3$

b. $4 \times \underline{\hspace{2cm}} = 0$

c. $6 + \underline{\hspace{2cm}} = 7$

d. $\underline{\hspace{2cm}} \times 5 = 5$

e. $7 \times 8 = (7 \times \underline{\hspace{2cm}}) + (7 \times 7)$



5 Choose the correct answer.

a. $0 \times 5 = 7 \times \underline{\hspace{2cm}}$

b. $7 + 0 = 7 \times \underline{\hspace{2cm}}$

c. $9 \times 5 = (9 \times 3) + (9 \times \underline{\hspace{2cm}})$

d. $3 \times 2 = 3 + \underline{\hspace{2cm}}$

e. $5 + 5 = \underline{\hspace{2cm}} \times 2$

(5 or 3 or 0)

(0 or 1 or 7)

(8 or 3 or 2)

(2 or 3 or 6)

(5 or 10 or 3)

f. $1 + 5 = 6 \times$ _____

g. $5 \times 2 = 10 +$ _____

h. $3 \times 4 = 0 +$ _____

i. $7 \times 0 = 7 -$ _____

j. $6 + 0 = 3 \times$ _____

k. $1 \times 10 = 1 +$ _____

(0 or 1 or 2)

(0 or 1 or 2)

(3 or 4 or 12)

(0 or 7 or 1)

(0 or 2 or 6)

(10 or 0 or 9)

Challenge

Put \times or $+$.

a. $8 \bigcirc 0 = 8$

b. $5 \bigcirc 1 = 5$

c. $8 \bigcirc 2 = 10$

d. $1 \bigcirc 4 = 5$

e. $0 \bigcirc 10 = 0$

f. $2 \bigcirc 4 = 8$

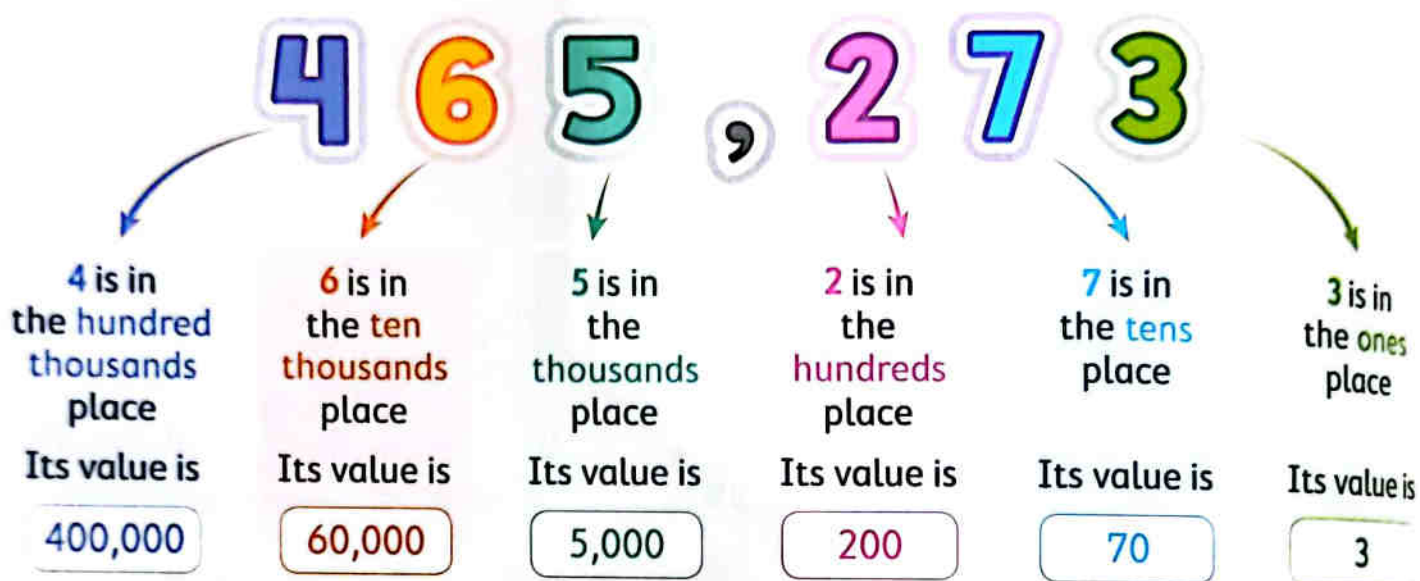


Place
a smiley
face

- The value of each digit in any number depends on its place in this number.

Example :

Notice the value and place value of each digit in the number 4 6 5 , 2 7 3



- Different forms of writing a number

Standard form : 465,273

Expanded form : $400,000 + 60,000 + 5,000 + 200 + 70 + 3$

Word form : Four hundred sixty-five thousands, two hundred seventy-three.

Check



Complete the table.

Number	Place value of circled digit	Value of circled digit
35,276		
179,065		
2,351		
42,678		
203,491		



Notes for parents

- Help your child to review on the value and the place value for 6-digit number.

Exercise 32

Review place value

On Lesson 54

1 Complete the following.

a. $469,538 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$

b. Three hundred twenty-one thousands, nine hundred thirty-one in standard form is $\underline{\hspace{2cm}}$

c. The value of the digit 6 in the number 26,033 is $\underline{\hspace{1cm}}$ and its place value is $\underline{\hspace{1cm}}$

d. $700,000 + 500 + 9,000 + 8 + 40 = \underline{\hspace{2cm}}$

e. $4,327 = \underline{\hspace{1cm}}$ thousands + $\underline{\hspace{1cm}}$ hundreds + $\underline{\hspace{1cm}}$ tens
+ $\underline{\hspace{1cm}}$ ones

f. The place value of the digit 5 in the number 351,260 is $\underline{\hspace{1cm}}$

g. The place value of the digit 1 in the number 127,536 is $\underline{\hspace{1cm}}$ and its value is $\underline{\hspace{1cm}}$

2 Choose the correct answer.

a. The value of the digit 3 in the number 43,782 is $\underline{\hspace{1cm}}$

☐ 30,000

☐ 300,000

☐ 3,000

b. $6,000 + 100,000 + 5 + 20 + 700 = \underline{\hspace{1cm}}$

☐ 16,725

☐ 106,725

☐ 61,527

c. The place value of the digit 8 in the number 582,014 is $\underline{\hspace{1cm}}$

☐ thousands

☐ ten thousands

☐ hundred thousands

d. Five hundred thirty-one thousands, seventy-four in standard form is $\underline{\hspace{1cm}}$

☐ 531,740

☐ 53,174

☐ 531,074

e. $74,215 > \underline{\hspace{1cm}}$

☐ 74,225

☐ 74,316

☐ 74,005

f. $352,948 < \underline{\hspace{1cm}}$

☐ 350,949

☐ 352,950

☐ 352,850

g. The place value of the digit 2 in the number 32,615 is $\underline{\hspace{1cm}}$

☐ hundred thousands

☐ ten thousands

☐ thousands

3 Complete the following.

- a. 30,000 = _____ thousands b. 200 hundreds = _____ thousands.
c. 4,000 = _____ thousands d. _____ tens = 600
e. _____ = 200 thousands f. 1 hundred thousands = _____ ten thousands

4 Put > , < or =.

- a. 7 thousands ☐ 700 thousands b. 79,284 ☐ 79,282
c. 14,120 ☐ 14,210 d. 120,000 ☐ 1,200 hundreds
e. 582,006 ☐ 581,006
f. 401,603 ☐ Forty-one thousands , six hundred three
g. 9,999 ☐ 10 thousands
h. 371,502 ☐ 39,813
i. $35 + 500 + 3,000$ ☐ $535 + 3,000$
j. $80,000 + 7,000 + 123$ ☐ $7,000 + 800,000 + 123$



5 Arrange the following numbers in an ascending order.

- a. 11,012 7,234 12,011 7,235 109,001

The order is : _____ , _____ , _____ , _____ , _____

- b. 55,318 505,720 5,099 550,941 55,418

The order is : _____ , _____ , _____ , _____ , _____

6 Arrange the following numbers in a descending order.

- a. 3,109 499 30,199 4,099 409,009

The order is : _____ , _____ , _____ , _____ , _____

- b. 248,672 15,368 9,725 248,671 15,378

The order is : _____ , _____ , _____ , _____ , _____

Find the mistake in each of the following. Correct the mistake.



a. The value of the digit 7 in the number 74,123 is 700,000

b. The expanded form of the number 835,469 is $8 + 30 + 500 + 4,000 + 60,000 + 900,000$

c. The word form of the number 58,072 is fifty-eight thousands, seven hundred two.

d. The place value of the digit 5 in the number 561,248 is ten thousands.

e. 300 thousands = 3,000 tens

f. $91,000 + 234 > 91,235$

g. $462,375 < 462,357$

h. 800 hundreds = 8 thousands

i. The numbers : 5,101 - 10,050 - 510,001 - 501,001 - 50,011 are arranged in an ascending order.

Challenge

Complete the missing digits in the two numbers 324, \square 65 and 19 \square ,654 Such that the two missing digits have the same value.



Add 324 + 167

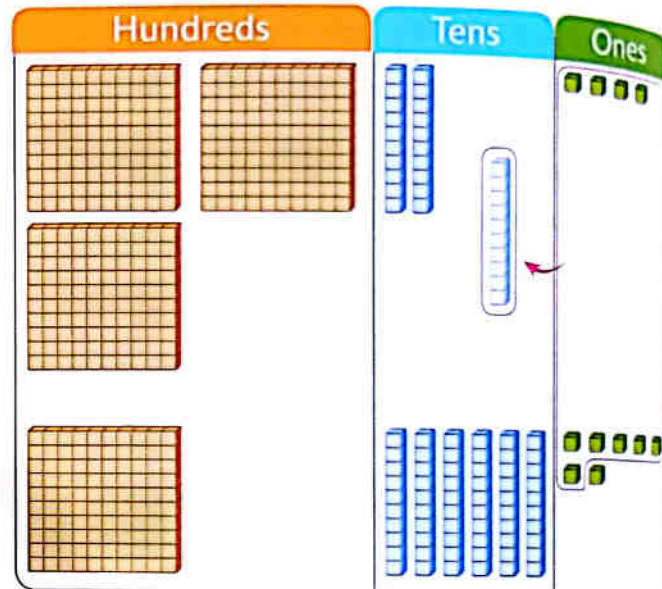
Here are some strategies that help you to add.

First strategy

Adding using place value blocks.

- Show each number with place value blocks.
- Combine the ones
 $4 \text{ ones} + 7 \text{ ones} = 11 \text{ ones} = 11$
- Combine the tens
 $2 \text{ tens} + 6 \text{ tens} = 8 \text{ tens} = 80$
- Combine the hundreds
 $3 \text{ hundreds} + 1 \text{ hundred} = 4 \text{ hundreds} = 400$
- Add each value to find the sum.

$$400 + 80 + 11 = 491$$



10 ones = 1 ten
10 tens = 1 hundred
10 hundreds = 1 thousand



Second strategy

Decomposing numbers.

- Decomposing each number writing the values of each digit.
- Add the values of ones, tens and hundreds.
- Add the total values

$$400 + 80 + 11 = 491$$

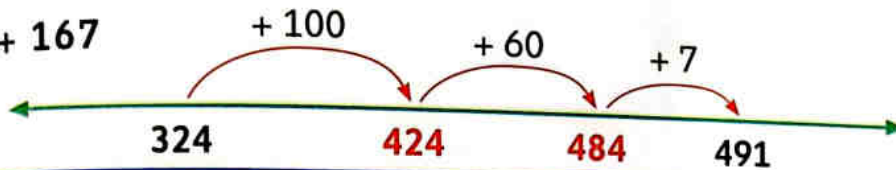
$$\begin{array}{rcl}
 324 & \rightarrow & 300 + 20 + 4 \\
 +167 & \rightarrow & + 100 + 60 + 7 \\
 \hline
 & & 400 + 80 + 11
 \end{array}$$

Third strategy

Number line hops.

- Decompose the smaller number which is 167.
- The first hop in the number line is adding hundreds.
- The second hop in the number line is adding tens.
- The third hop in the number line is adding ones.

$$324 + 167$$



$$167 \rightarrow 100 + 60 + 7$$

$$324 + 100 = 424$$

$$424 + 60 = 484$$

$$484 + 7 = 491$$

Fourth strategy

Adding with regrouping

- Start by adding the ones moving to the left.

This shows that we regrouped 10 ones as 1 ten

$$\begin{array}{r} 1 \\ 324 \\ + 167 \\ \hline 491 \end{array}$$

Estimate to check $3\textcircled{2}4$ rounds down to 300
 $1\textcircled{6}7$ rounds up to 200



The estimation is : $300 + 200 = 500$

since 491 is close to 500, the answer is reasonable.

You can use these strategies to add numbers which has more or less than 3- digits.

Check



Use one of the previous strategies to show how to find the sum of 416 and 258.

*Help your child to understand all strategies and ask him/her to find the sum of 508 and 192 and estimate to check the answer.

Exercise 33

Addition strategies

On Lessons 55 & 56

- 1 Use decomposing numbers strategy to add each of the following.

Problem	Work area	The sum
a. $328 + 461$	$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$ $\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$ $\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$	
b. $142 + 325$	$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$ $\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$ $\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$	
c. $615 + 324$	$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$ $\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$ $\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$	
d. $207 + 512$		
e. $148 + 423$		
f. $3,125 + 4,519$		
g. $7,210 + 2,325$		

285

3 Add.

a.
$$\begin{array}{r} 437 \\ + 318 \\ \hline \end{array}$$

b.
$$\begin{array}{r} 532 \\ + 218 \\ \hline \end{array}$$

c.
$$\begin{array}{r} 629 \\ + 317 \\ \hline \end{array}$$

d.
$$\begin{array}{r} 757 \\ + 156 \\ \hline \end{array}$$

e.
$$\begin{array}{r} 160 \\ + 485 \\ \hline \end{array}$$

f.
$$\begin{array}{r} 678 \\ + 228 \\ \hline \end{array}$$

g.
$$\begin{array}{r} 145 \\ + 56 \\ \hline \end{array}$$

h.
$$\begin{array}{r} 625 \\ + 91 \\ \hline \end{array}$$

i.
$$\begin{array}{r} 3,236 \\ + 4,285 \\ \hline \end{array}$$

j.
$$\begin{array}{r} 5,290 \\ + 333 \\ \hline \end{array}$$

k.
$$\begin{array}{r} 6,706 \\ + 2,186 \\ \hline \end{array}$$

l.
$$\begin{array}{r} 7,104 \\ + 609 \\ \hline \end{array}$$

m. $427 + 348$

n. $229 + 562$

o. $75 + 25$

p. $347 + 295$

q. $7,217 + 1,664$

r. $3,479 + 2,373$

s. $653 + 39$

t. $5,237 + 486$





4 Solve the following problems using two different strategies.

Problem	First strategy	Second strategy
a. $127 + 426$		
b. $355 + 25$		
c. $429 + 152$		

5 Solve the addition problems below using a strategy that is efficient for you. Estimate to check the answer.

Problem	Work area	Estimation
a. $356 + 282$		
b. $171 + 162$		
c. $37 + 148$		
d. $3,668 + 1,027$		

6 Solve the following problems.

a. $(142 + 297) + 116$
 $= (\quad) + 116$
 $= \quad$

b. $316 + 12 + 149$

c. $98 + 312 + 175$

d. $(137 + 201) + (119 + 235)$
 $= (\quad) + (\quad)$
 $= \quad$

e. $411 + 98 + 312 + 175$

f. $156 + 252 + 309 + 213$



Hint

Add the first and the second numbers together, then add the sum to the third number.



Hint

Add the first and the second numbers, Add the third and the fourth numbers, then add the two sums together.



- 7** The table below shows the saved money in one year by 4 children.
Use this information to answer the questions.

- a. Find the total amount which saved by Bassem and Mina.

Saved money	
Name	Amount in pounds
Bassem	325
Sylvia	567
Mina	328
Amal	472

- b. Find the total amount which saved by Sylvia and Amal.

- c. Find the total amount which saved by Bassem , Sylvia and Mina.



Challenge

- d. Compare between the saved money for (Bassem and Sylvia) and the saved money for (Mina and Amal).

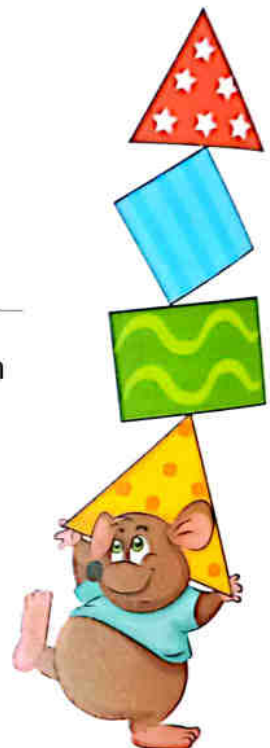
- 8** The following table shows the approximated distance between Egypt and some countries in km. Use the information to answer the questions below.

- a. Find the sum of distances between Saudi Arabia to Egypt and Tunisia to Egypt.

Approximated distance from Egypt to	
Country	Distance in km.
Saudi Arabia	1,470
Tunisia	2,480
Ghana	3,955
Italy	2,360

- b. Find the total distance from Egypt to Ghana and from Egypt to Italy.

- c. Find the sum of distances from Egypt to Tunisia and from Egypt to Ghana.



Challenge

- d. Find the total four distances from Egypt to the other 4 countries.



Subtract using strategies

Learn

Subtract $318 - 145$

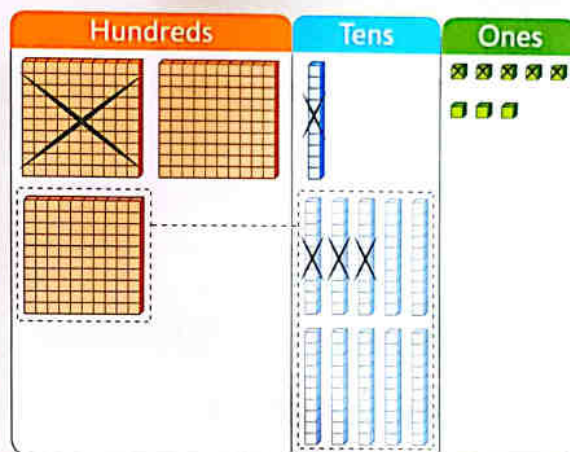
Here are some strategies that help you to subtract.

First strategy

Place value blocks.

- Show the greater number with place value blocks.
 $8 \text{ ones} - 5 \text{ ones} = 3 \text{ ones} = 3$
- Subtract the ones
 $8 \text{ ones} - 5 \text{ ones} = 3 \text{ ones} = 3$
- Subtract the tens
Since there are not enough tens to subtract, decompose 1 hundred as 10 tens.
 $11 \text{ tens} - 4 \text{ tens} = 7 \text{ tens} = 70$
- Subtract the hundreds.
 $2 \text{ hundreds} - 1 \text{ hundred} = 1 \text{ hundred} = 100$
- Add the values to find the difference

$$100 + 70 + 3 = 173$$

**Second strategy**

Number line hops.

- Decompose the smaller number
- The first hop in the number line is subtracting hundreds
- The second hop in the number line is subtracting tens.
- The third hop in the number line is subtracting ones.

$$145 = 100 + 40 + 5$$

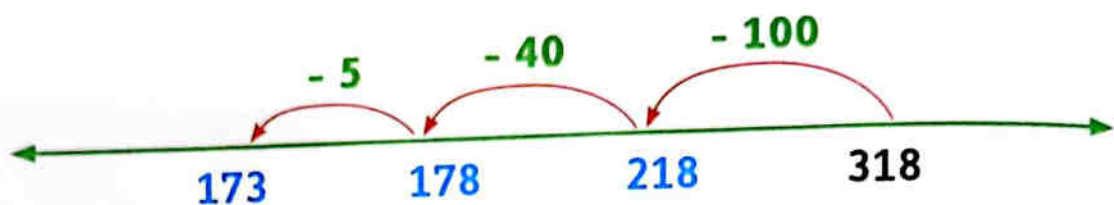
$$318 - 100 = 218$$

$$218 - 40 = 178$$

$$178 - 5 = 173$$

Notes for parents

- Help your child to recognize different subtraction strategies to solve problems.



Third strategy

Subtracting with regrouping

- Start by subtracting the ones moving to the left.

$$\begin{array}{r} 2 \ 11 \\ \cancel{3} \cancel{1} 8 \\ - 145 \\ \hline 173 \end{array}$$

Check



Using fact family

- Add the difference to the subtrahend
If you get minuend, then your check
and your answer is correct

Since, $318 - 145 = 173$

minuend

subtrahend

difference

Then : $173 + 145 = 318$

So, 173 is the correct answer.

These strategies can be used in subtraction of 3-digit number and more or less digits.

Remember fact family

$$318 - 145 = 173$$

$$318 - 173 = 145$$

$$173 + 145 = 318$$

$$145 + 173 = 318$$



Check



- Use any strategy to find the difference of $365 - 280$.
Check your answer using fact families.

Exercise 34

Subtract using strategies

On Lesson 57

1 Use the number line to subtract each of the following.

a.

$$\begin{array}{r} 825 \\ - 210 \\ \hline \end{array}$$

Work area



b.

$$\begin{array}{r} 560 \\ - 350 \\ \hline \end{array}$$

Work area

c.

$$\begin{array}{r} 538 \\ - 235 \\ \hline \end{array}$$

Work area

d.

$$\begin{array}{r} 630 \\ - 125 \\ \hline \end{array}$$

Work area

e.

$$\begin{array}{r} 8,820 \\ - 623 \\ \hline \end{array}$$

Work area

f.

$$\begin{array}{r} 7,652 \\ - 4,071 \\ \hline \end{array}$$

Work area

2 Subtract.

a.
$$\begin{array}{r} 591 \\ - 342 \\ \hline \end{array}$$

b.
$$\begin{array}{r} 436 \\ - 129 \\ \hline \end{array}$$

c.
$$\begin{array}{r} 630 \\ - 215 \\ \hline \end{array}$$

d.
$$\begin{array}{r} 442 \\ - 324 \\ \hline \end{array}$$

e.
$$\begin{array}{r} 156 \\ - 28 \\ \hline \end{array}$$

f.
$$\begin{array}{r} 309 \\ - 41 \\ \hline \end{array}$$

g.
$$\begin{array}{r} 239 \\ - 159 \\ \hline \end{array}$$

h.
$$\begin{array}{r} 670 \\ - 237 \\ \hline \end{array}$$

i.
$$\begin{array}{r} 7,264 \\ - 5,158 \\ \hline \end{array}$$

j.
$$\begin{array}{r} 6,418 \\ - 4,238 \\ \hline \end{array}$$

k.
$$\begin{array}{r} 7,657 \\ - 6,238 \\ \hline \end{array}$$

l.
$$\begin{array}{r} 8,712 \\ - 420 \\ \hline \end{array}$$

m. $383 - 124$

n. $626 - 108$

o. $520 - 370$

p. $831 - 190$

q. $4,813 - 3,504$

r. $7,911 - 2,321$

s. $6,775 - 258$

t. $8,742 - 351$



3 Solve the following subtraction problems using two different strategies.

Problem	First strategy	Second strategy
a. $651 - 123$		
b. $735 - 206$		
c. $127 - 35$		

4 Solve each subtraction problem using any strategy you choose.
Use fact families to check your answer.

Problem	Work area	Check your answer
a. $684 - 232$		
b. $790 - 50$		
c. $855 - 105$		
d. $3,489 - 1,263$		



Lesson 58

Addition and subtraction word problems

Learn

Youssef has 237 blocks, Maged has 148 blocks.

How many blocks do they have all together ?



Look for keyword to solve.

All together



Decide if you add or subtract.

Add

Subtract



Solve the problem.

①

$$\begin{aligned}\text{The number of all blocks} &= 237 + 148 \\ &= 385 \text{ blocks.}\end{aligned}$$



- Look for
- Decide
- Solve



Hint :

Some keywords of
addition :

- total
- all together
- sum
- in all
- and
- add
- join

The school library had 3,640 books for rent.

During one week 1,280 of them were rented.

How many books were left ?



Look for keyword to solve.

Left



Decide if you add or subtract.

Add

Subtract



Solve the problem.

⑤ ⑭

$$\begin{aligned}\text{The left books} &= 3,640 - 1,280 \\ &= 2,360 \text{ books.}\end{aligned}$$



- Look for
- Decide
- Solve



Hint :

Some keywords of
subtraction :

- left
- how many more?
- how many less?
- take away
- remain
- difference
- subtract

Notes for parents

- Ask your child to solve word problems using other strategies he/she has learned such as place value blocks, number line hops or adding/subtracting with regrouping.

Exercise 35

Addition and subtraction word problems

On Lesson 58

Read each story problem and decide on a strategy to solve it show your work of each problem. Some problems might have more than one step to be solved. Read carefully.

- a. Amr saved 365 pounds in one year. The next year he saved 475 pounds.
What is the total amount he saved ?



- b. There are 365 days in one year. If 147 days have passed since the beginning of the year. How many days are left in the year ?



- c. The school arranged a trip to pyramids. 1,355 students from primary stage and 1,420 from preparatory and secondary stages are going.
How many students are going in all stages ?



- d. Bassem's book has 370 pages. He has already read 139 pages.
How many pages does Bassem have left to read ?



- e. Three boxes filled with marbles were just delivered to the factory.
If each box is filled with 435 marbles.
How many marbles were delivered in all ?



- f. The library can hold 3,645 books. If 1,355 books are out on loan
and 250 books are missing.
How many books are there in the library right now ?



- g. Sami had 6,000 L.E. to spend. He bought a new mobile for 3,250 L.E.
and a speaker for 675 L.E.
How much money does he have left with him ?



- h. Amany has 5,320 pounds to buy a new T.V.
If the price of the T.V. is 7,210 pounds.
How much more money does she need to buy the T.V. ?



Liquid volume (Measuring capacity)

Learn 1 Capacity

- Capacity is the amount of **liquid** a container can hold.
- Units of capacity are :
a liter (L) used to measure large amounts and
a milliliter (mL) used to measure small amounts.

For example :



Vocabulary

Liquid
is that can take the shape of its container.



- There are 1,000 milliliters in 1 liter.




$$1 \text{ liter (L)} = 1,000 \text{ milliliters (mL)}$$

So, 2 L = 2,000 mL , 3 L = 3,000 mL , ...

Check



Choose the unit you would use to measure the capacity of each.

 <div> <input type="radio"/> L <input type="radio"/> mL </div>	 <div> <input type="radio"/> L <input type="radio"/> mL </div>	 <div> <input type="radio"/> L <input type="radio"/> mL </div>
 <div> <input type="radio"/> L <input type="radio"/> mL </div>	 <div> <input type="radio"/> L <input type="radio"/> mL </div>	 <div> <input type="radio"/> L <input type="radio"/> mL </div>

Notes for parents

- Let your child think about some containers at home, then determine 2 containers might hold more than 1 liter.

Learn 2 Liquid volume (Measuring capacity)

Vocabulary

Graduated cylinder is a graduated tool like ruler from 0 to 100 and the listed numbers are skip counted by 10's and it holds 100 mL



I can measure the capacity of juice box by **graduated cylinder**.

The capacity of juice box is 90 mL.



Check



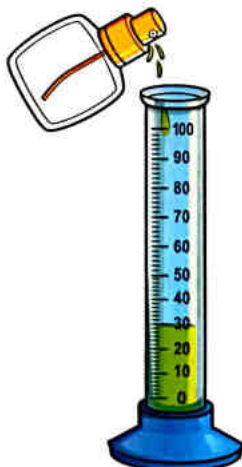
Write the capacity for each of the following.



Capacity of



is _____ mL



Capacity of



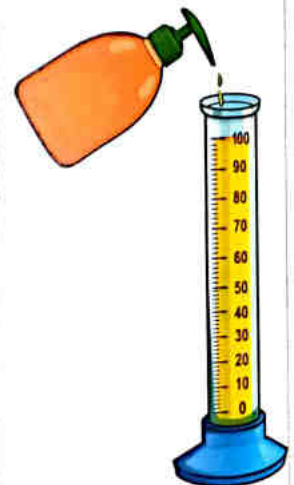
is _____ mL



Capacity of



is _____ mL



Capacity of



is _____ mL

Notes for parents

- Let your child use a graduated cylinder to measure a small milk box.

Exercise 36

Liquid volume (Measuring capacity)

On Lessons 59 & 60

1 Choose the better estimation for each.

a.



☐ 1 mL ☐ 1 L

b.



☐ 300 mL ☐ 300 L

c.



☐ 10 mL ☐ 10 L

d.



☐ 40 mL ☐ 40 L

e.



☐ 2 mL ☐ 2 L

f.



☐ 500 mL ☐ 500 L

g.



☐ 200 mL ☐ 200 L

h.



☐ 3 mL ☐ 3 L

i.



☐ 350 mL ☐ 350 L

j.



☐ 4 mL ☐ 4 L

k.




☐ 10 mL ☐ 10 L

l.

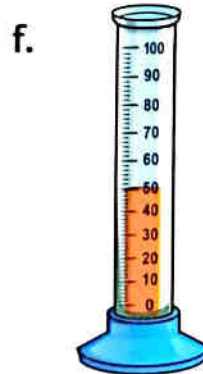
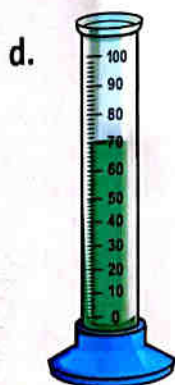
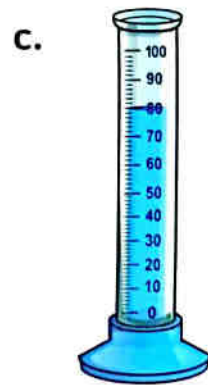


☐ 50 mL ☐ 50 L

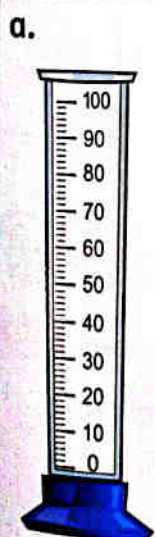
- 2** Complete the table by writing the names of the containers around you, then write the suitable unit to measure the capacity of each container.

Container	Suitable measurement unit
<p>Example :</p> <p><i>A tank of water</i> </p>	<p><i>liter (L)</i></p>
<p>a.</p>	
<p>b.</p>	
<p>c.</p>	

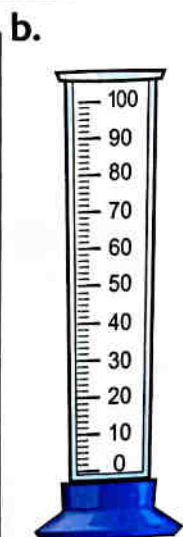
3 How many mL are there ?



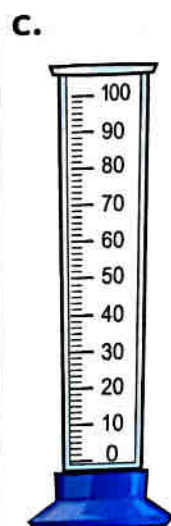
4 Color to reach the given measures.



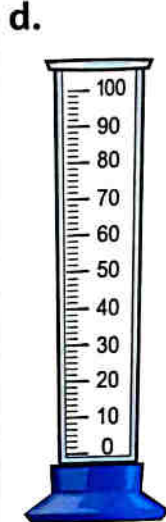
30 mL



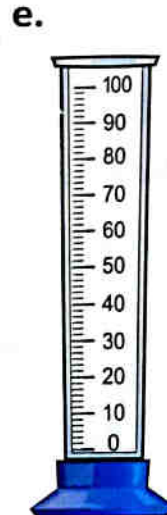
80 mL



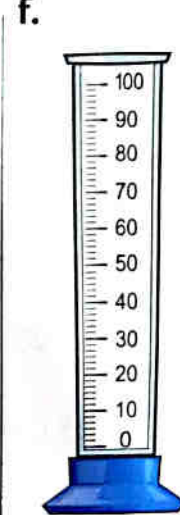
50 mL



100 mL

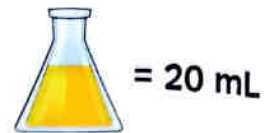


10 mL

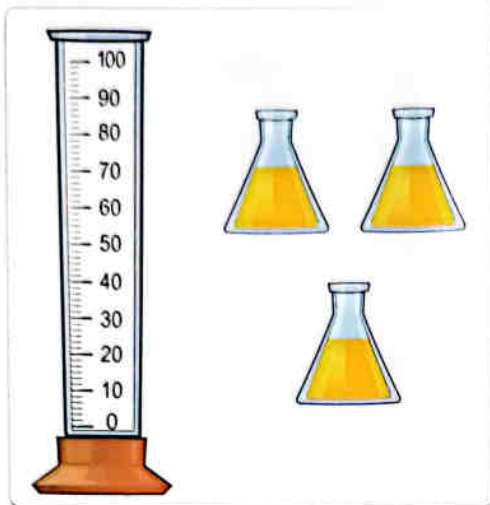


70 mL

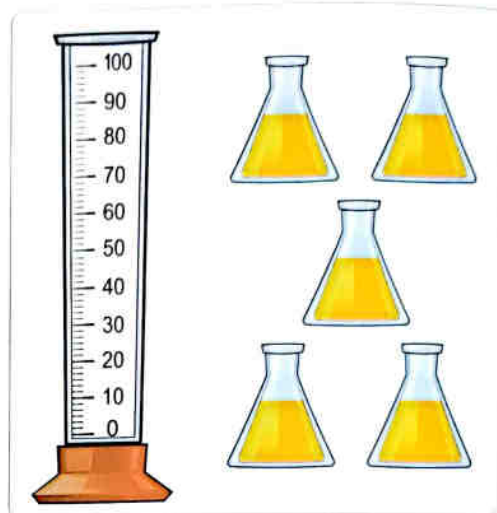
5 Color to reach the required measures.



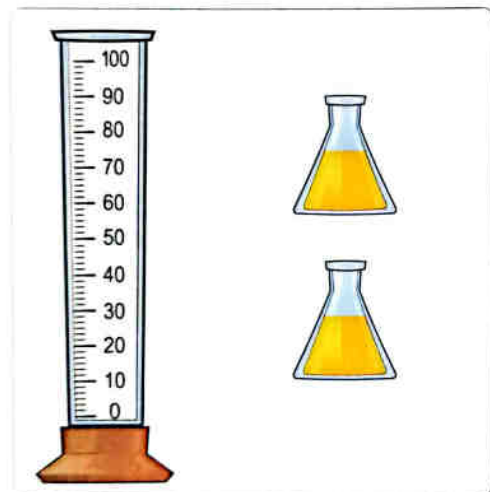
a.



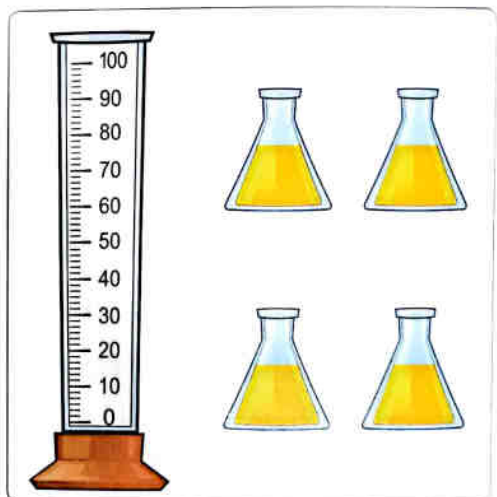
b.



c.



d.



6 Complete the following.

a. 5 L = mL

c. 3,000 mL = L

e. 25 L = mL

g. 10 Liters = milliliters

i. 75,000 milliliters = Liters

b. 9 L = mL

d. 4,000 mL = L

f. 37,000 mL = L

h. 7 Liters = milliliters

j. 1,000 milliliters = Liters

7 Choose the correct answer.

- a. $3\text{ L} = \text{_____ mL}$. (30 or 300 or 3,000)
- b. $14\text{ liters} = \text{_____ milliliters}$. (140 or 14,000 or 1,400)
- c. $10\text{ L} = \text{_____ mL}$. (1,000 or 100 or 10,000)
- d. A perfume bottle is measured by _____. (mL or L)
- e. Water in a basin is measured by _____. (mL or L)
- f. The graduated cylinder is a tool for measuring _____.
(capacity or tall or weight)
- g. The capacity of a soda can could be _____. (330 L or 330 mL)
- h. $2,000\text{ mL} = \text{_____ L}$ (200 or 2 or 20)
- i. $70,000\text{ mL} = \text{_____ L}$ (700 or 7 or 70)
- j. The liter is a unit used to measure _____.
(tall or temperature or capacity)
- k. Milk in a bottle is measured by _____. (L or mL)
- l. $3\text{ L} + 2\text{ L} = \text{_____ mL}$ (5 or 500 or 5,000)
- m. $5,000\text{ mL} - 2,000\text{ mL} = \text{_____ L}$ (2 or 3 or 4)
- n. $2\text{ L} + 1,000\text{ mL} = \text{_____ L}$ (2 or 3 or 4)

Challenge

- 8** Sameh drank 1,300 mL of water.
How much more or less than 1 L did he drink ?

Place
a smiley
face



Assessment Chapter 6

1 Choose the correct answer.

a. $-269 = 372$

- ☐ 103 ☐ 475
☐ 641 ☐ 117

c. $3 \times 7,000 =$

- ☐ 2,100 ☐ 21,000
☐ 210 ☐ 21

e. $806,257 <$

- ☐ 752,608 ☐ 806,255
☐ 806,258 ☐ 257,808

b. 20 thousands = _____ tens.

- ☐ 20 ☐ 200
☐ 2,000 ☐ 20,000

d. The value of the digit 4 in the number 542,098 is

- ☐ 400,000 ☐ 40,000
☐ 4,000 ☐ 400

f. $8 \times \text{_____} = (8 \times 5) + (8 \times 2)$

- ☐ 10 ☐ 3
☐ 8 ☐ 7

2 Find the result.

a. $5 \ 2 \ 9$

$+ \ 3 \ 5 \ 6$

b. $6,650$

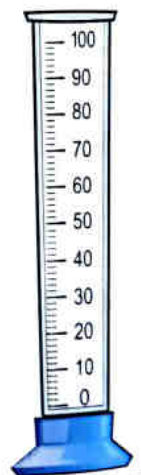
$- \ 2,800$

c. $3,298 + 967 =$

d. $7,000 - 3,251 =$

3 Color to reach the required measure.

Key :  = 30 ml



4 Complete.

a. $9 \times 7 =$

c. $20 \times 6 =$

e. $5,000 \text{ mL} =$ L

b. $5 \times 30 = (5 \times \text{_____}) \times 10$

d. $7 \text{ L} =$ ml

f. $\text{_____} \times 9 = 36$


- 5 Sama's family saved 7,000 L.E. to buy a new TV and a speaker. If the TV costs 4,500 L.E. and the speaker costs 375 L.E.

How much money were left with Sama's family ?


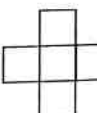

Accumulative Assessment

Till chapter 6

1 put (✓) to the correct statement or (X) to the incorrect statement.

- a. $3 \text{ cm} = 300 \text{ mm}$ ()
- b. The square's vertices are similar. ()
- c. 12 is a multiple of 3 ()
- d. 3 rows of 4 = $3 + 3 + 3$ ()
- e. $2,345 = 5 + 400 + 30 + 2,000$ ()
- f.  represent 11 ()

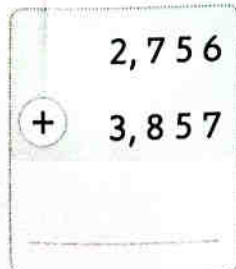
2 Complete.

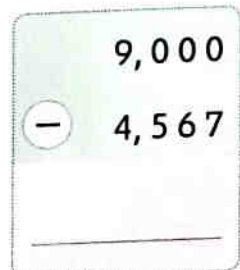
- a.  , _____ , _____ (in the same pattern).
- b. The pentagon is a polygon which has _____ vertices.
- c. The area of the shape  equals _____ 
- d. The place value of the digit 6 in the number 3,645 is _____
- e. The minute hand will point to the number 5 when _____ minutes have passed.
- f. $9 \times 17 = (9 \times 10) + (9 \times \text{_____})$

3 Use any strategy to find.

a. $324 + 135$

b. $765 - 341$

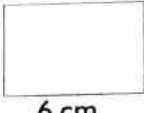
c. 

d. 

4 Mai saved 540 pounds in one year. The next year she saved 475 pounds.

What is the total amount she saved ?

5 Choose the correct answer.

- a. $200 \text{ cm} + 500 \text{ cm} =$ _____ m. (2 or 3 or 5 or 7)
 b. $7 \times 9 = 9 \times$ _____. (7 or 8 or 5 or 2)
 c. 210 hundreds = _____ thousands. (210 or 2,100 or 2,1000 or 21)
 d. 5×2 tens ☐ 10 tens. (< or = or >)
 e. 7,000 milliliters = _____ liters. (7 or 70 or 700 or 7,000)
 f. The perimeter of the rectangle  4 cm is _____ cm. (4 or 6 or 10 or 20)

6 Match.

- a. $5,621 + 1,798$ b. $279 + 95$ c. $521 - 186$ d. $2,030 - 1,521$
- ☐ 374 ☐ 509 ☐ 7,419 ☐ 335

7 Use the table to draw a line plot.

Ages of children in karate class



Ages of children in karate class	
Age in years	Tallies
7	
8	
9	
10	
11	
12	
13	



key

Use the line plot to answer the questions :

- a. How many children in the class are 11 years ? _____ children
 b. What age is the greatest number of children ? _____ years old
 c. How many children are in karate class in all ? _____ children

Mathematics

FINAL ASSESSMENTS

FREE PART 1

By a group of supervisors



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3rd
Primary
FIRST TERM

Final Assessments



Model

1

1 Choose.

a $84 \text{ cm} =$ mm

☐ 84

☐ 840

☐ 8,400

b $7,325$ 999

☐ $>$

☐ $<$

☐ $=$

c $700 + 30,000 + 5 + 80 =$

☐ 3,785

☐ 30,785

☐ 37,850

d _____ is a multiple of 3

☐ 12

☐ 8

☐ 14

e How many vertices are there in a parallelogram?

☐ 2

☐ 4

☐ 6

f $9 \times 6 = (9 \times 4) + (9 \times \text{---})$

☐ 9

☐ 5

☐ 2

2 Complete.

a $3 \times 400 =$

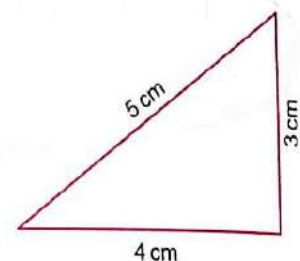
b Four hundred fifty-one thousands, three hundred thirty-one in standard form is _____

c $7,315 + 1,283 =$

d The perimeter of the opposite polygon = _____ + _____ + _____ = _____ cm

e $24 \div 4 =$

f The minute hand will point to number _____ when 45 minutes have passed.

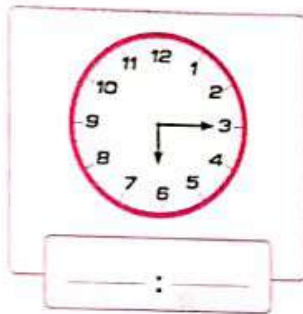


3 Answer the following.

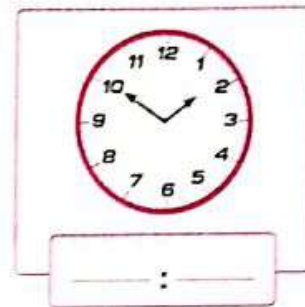
- a** Ahmed has 15 eggs and wants to put them equally in 5 plates.
How many eggs are there in each plate ?

The number of eggs in each plate = _____

- b** Write the time in two ways.

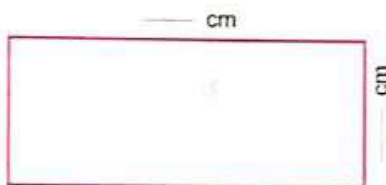


It's _____



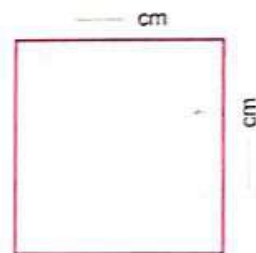
It's _____

- c** Find the perimeter and the area of each figure.



• Perimeter = _____ + _____ + _____ + _____
= _____ cm

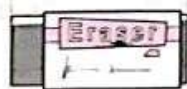
• Area = _____ × _____
= _____ square centimeters



• Perimeter = _____ + _____ + _____ + _____
= _____ cm

• Area = _____ × _____
= _____ square centimeters

- d** Use a ruler to measure the length of each of the following.



_____ mm



_____ mm



_____ mm



_____ mm

Model

2

1 Choose.

(a) The place value of the digit 4 in the number 48,205 is _____

- ☐ hundred thousands ☐ ten thousands ☐ thousands

(b) $2 \times \text{---} = 4 + 4 + 4$

- ☐ 2 ☐ 4 ☐ 6

(c) _____ is a common multiple of 2 and 3

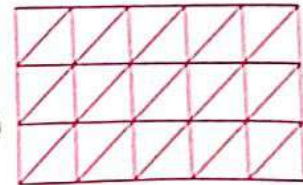
- ☐ 4 ☐ 12 ☐ 8

(d) 20,004 4,002

- ☐ > ☐ < ☐ =

(e) The area of the opposite figure = _____

- ☐ 8 ☐ 15 ☐ 30



(f) $300 \times 4 = \text{---}$

- ☐ 12 ☐ 120 ☐ 1,200

2 Complete.

(a) $7 \times 8 = \text{---}$

(b) 25,607 in expanded form is _____ + _____ + _____ + _____

(c) The perimeter of the rectangle which its dimensions are 5 cm and 6 cm is _____ cm

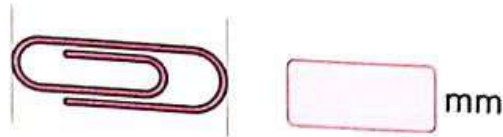
(d) The examples for parallelograms are : _____ , _____ and _____

(e) 3 liters = _____ mL

(f) 20 , 24 , 28 , 32 , _____ , _____ , _____ (in the same pattern)

3 Answer the following.

a Measure the length in mm.



b Draw the clock hands which represent the digital clock.

5 : 40



c Arrange the following numbers in a descending order.

15,001

50 thousands

105,000

501 hundreds

The order is : _____ , _____ , _____

d There are 6 apples in a box.

How many apples are there in 9 boxes ?

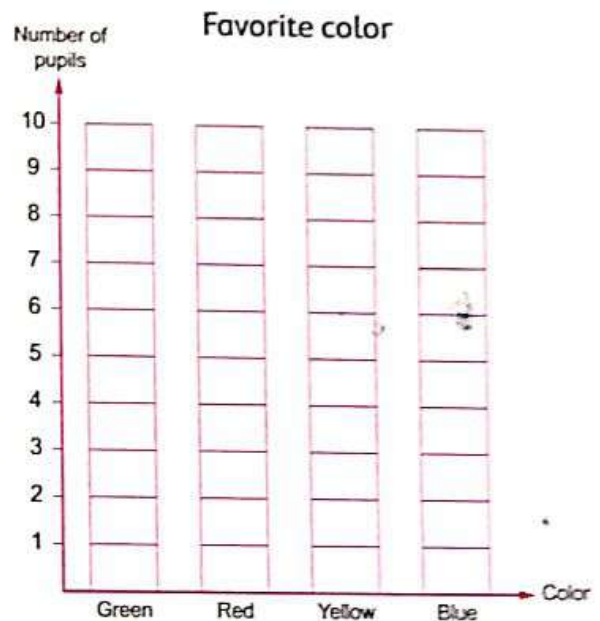
e Find the results.

$$\begin{array}{r} 587 \\ + 239 \\ \hline \end{array}$$

$$\begin{array}{r} 4,428 \\ - 1,153 \\ \hline \end{array}$$

f Count the tallies. Write the total. Color the graph to show the data.

Favorite color		
Color	Tally	Number
Green		_____
Red		_____
Yellow		_____
Blue		_____



Model

3

1 Choose.

a $2 \text{ — } 0 = 0$

☐ +

☐ -

☐ \times

b — is a common multiple of 5 and 10

☐ 25

☐ 30

☐ 15

c The value of the digit 5 in 752,386 is —

☐ 500

☐ 5,000

☐ 50,000

d $5 \times 8 \text{ — } 4 \times 10$

☐ >

☐ <

☐ =

e Which of the following does not represent a polygon?



f $6 \div 3 = \text{ — }$

☐ 18

☐ 2

☐ 3

2 Complete.

a 5 thousands = — tens.

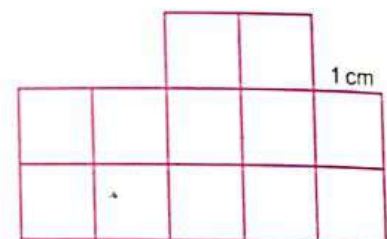
b 7 liters = — milliliters.

c The factors of 4 are $\text{ — }, \text{ — }, \text{ — }$

d 13, 17, 21, — (in the same pattern)

e The area of the opposite figure = — square centimeters

f $7,592 - 4,317 = \text{ — }$



3 Answer the following.

- a** Sameh has 153 marbles , Marwan has 223 marbles.

How many marbles do they have all together ?

- b** Write the numbers in order from least to greatest.

325,261

532,272

24,362

532,271

The order is : _____ , _____ , _____ , _____

- c** Create an array.

4 rows of 2

3 columns of 5

- d** Our Math lesson started at 10:00.

It finished at



Math lesson took _____ minutes.

Model

4

1 Choose.

a 232 thousands and 4 232,400

☐ >

☐ <

☐ =

b _____ is a multiple of 2

☐ 13

☐ 15

☐ 20

c The perimeter of the opposite figure is _____ units.

☐ 14

☐ 15

☐ 13

d $3 \times 80 =$ _____

☐ 24

☐ 240

☐ 2,400

e How many mL are there ?

☐ 40

☐ 30

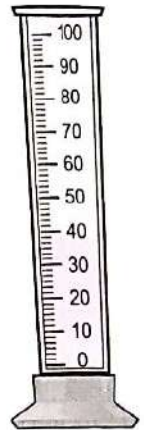
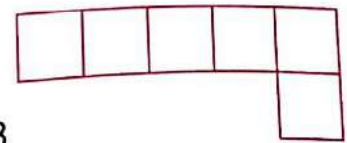
☐ 20

f $9 \times 8 =$ _____

☐ 63

☐ 18

☐ 72



2 Complete.

a $78,032 =$ _____ + _____ + _____ + _____

b $24 \div 8 =$ _____

c $5 \times 8 = (5 \times 5) + (5 \times \text{---})$

d _____ tens = 800


e $7,453 + 3,572 =$ _____

f ☐ ☐ ☐ ☐ ☐ ☐ _____ (in the same pattern)

3 Answer the following.

a Name each figure and write the missing number.

Name : _____

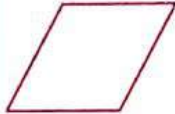


equal sides

pair of parallel sides

vertices

Name : _____

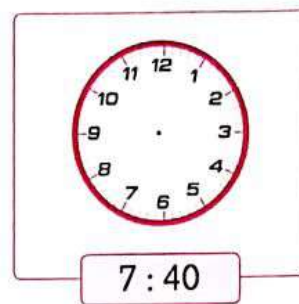
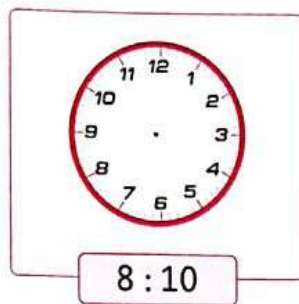


pair of equal sides

pair of parallel sides

vertices

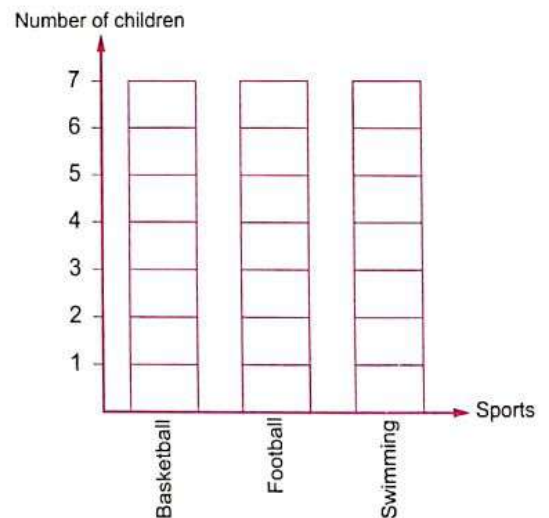
b Draw the clock hands.



c Sarah has 4 packets of sweets each with 5 pieces of sweets in.
How many pieces of sweets Sarah has ?

d Count the tallies. Write the total. Color the graph.

Favorite sports		
Sport	Tally	Number
Basketball		_____
Football		_____
Swimming		_____



Model

5

1 Choose.

a What number will the minute hand point to when 40 minutes have passed?

☐ 7

☐ 8

☐ 9

b $2 \times 6 =$ _____

☐ 4×5

☐ 3×4

☐ 12×0

c The value of the digit 0 in the number 301,532 is _____

☐ 0

☐ 1,000

☐ 10,000

d $700 \text{ mm} =$ _____ cm

☐ 70

☐ 7

☐ 7,000

e Which of the following does not represent a polygon?

☐ pentagon

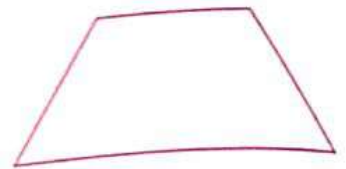
☐ rectangle

☐ circle

f The name of the opposite figure is _____

☐ square

☐ trapezium



2 Complete.

a Three thousand, two hundred five in standard form is _____

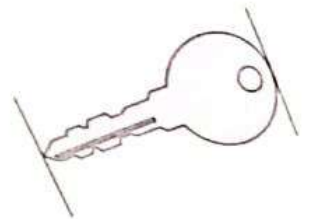
b $7,400 - 3,213 =$ _____

c _____ $\times 9 = 45$

d 94, 84, 74, _____, _____ (in the same pattern)

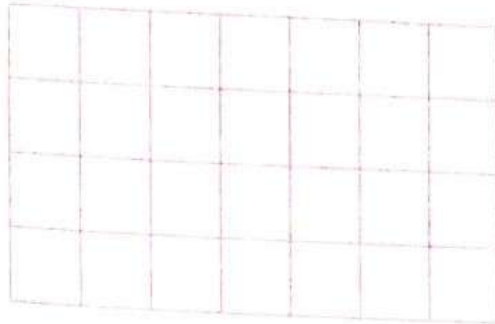
e The length of the opposite figure = _____ cm

f The factors of 12 are : _____, _____, _____, _____, _____, _____



3 Answer the following.

- a** Draw a rectangle of perimeter 8 length units in the grid and find its area.



The area = _____ square units

b $325 + 137 + 241 =$ _____
 $=$ _____

- c** Find the result.












(1) $7 \times 8 =$ _____

(2) $5 \times 7 =$ _____

(3) $18 \div 2 =$ _____

(4) $1 \times 8 =$ _____

- d** Use the key in pictograph to complete the tally table.

Favorite pet	
Cat	 
Dog	   
Fish	    

Favorite pet	
Pet	Tally
Cat	
Dog	
Fish	

key



= 2 children



= 1 child

Model

6

1 Choose.

a 2×500 $999 + 1$

☐ >

☐ <

☐ =

b $6 + 6 + 6 + 6 =$ $\times 6$

☐ 2

☐ 4

☐ 6

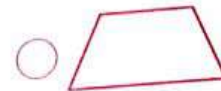
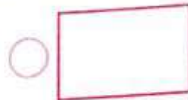
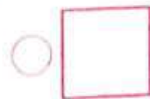
c $800 \text{ mm} =$ cm

☐ 8

☐ 80

☐ 88

d Which of the following does not represent a parallelogram?



e 2 thousands = hundreds.

☐ 2

☐ 20

☐ 200

f $648 + 9,000 =$

☐ 90,648

☐ 9,648

☐ 64,809

2 Complete.

a (in the same pattern)

b Nine hundred sixty-eight thousands, four hundred thirty-one in standard form is

c $42 \div 7 =$

d The smallest number that can be formed from the digits

3, 0, 4, 5, 6, 2 is

e The number which the minute hand points to when 20 minutes have passed is

f $7,326 - 5,296 =$

3 Answer the following.

a Find the answer.

$$134 + 97 + 215 + 345 = (\quad) + (\quad) = \quad$$

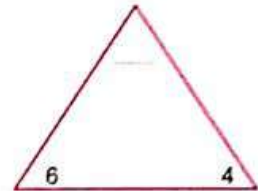
b Find the product. Write the fact family.

$$\quad \times \quad = \quad$$

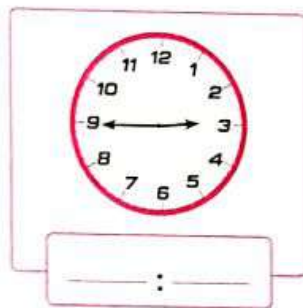
$$\quad \times \quad = \quad$$

$$\quad \div \quad = \quad$$

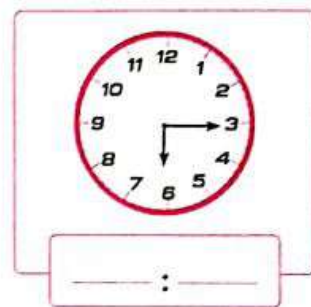
$$\quad \div \quad = \quad$$



c Write the time.



It is _____

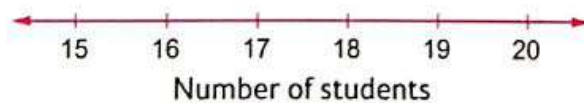


It is _____

d The school library had 5,775 books for borrowing. During one week 1,580 of them were borrowed and 370 books were missed. How many books are there in the library right now ?

e Use the table to draw a line plots.

Marks of students in an exam



key Each x = — student

Marks of students in an exam

Marks	Number of students
15	3
16	1
17	4
18	6
19	4
20	2

1 Choose.

- a The number of vertices of a hexagon =
- ☐ 3 ☐ 5 ☐ 6
- b $60 \times 3 =$
- ☐ 18 ☐ 180 ☐ 120
- c is a multiple of 3
- ☐ 6 ☐ 8 ☐ 10
- d The value of the digit 3 in the number 324,510 is
- ☐ 300 ☐ 3,000 ☐ 300,000
- e 150 thousands 1,500 hundreds
- ☐ > ☐ < ☐ =
- f = $(8 \times 4) + (8 \times 5)$
- ☐ 8×9 ☐ 8×8 ☐ 8×5

2 Complete.

- a 30 , 32 , 34 , (in the same pattern)

- b 35 liters = mL



rows of

\times =

- d $7 \times 3 =$

- e $30 \div 5 =$

- f $20,000 + 700 + 50 + 7 =$ (in standard form)

3 Answer the following.

a Arrange in an ascending order.

734,520

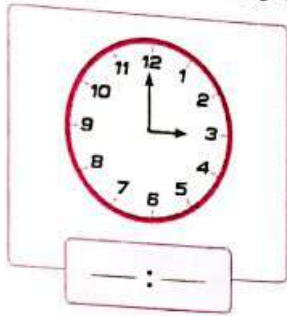
97,541

725,743

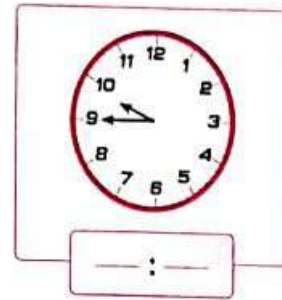
97,394

The order is : _____

b Write the time in two ways.



It's _____



It's _____

c Find the result.

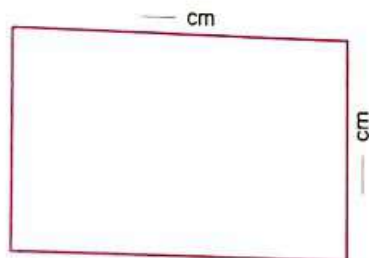
(1) $7,522 + 2,785 =$ _____

(3) $7 \times 8 =$ _____

(2) $3,741 - 579 =$ _____

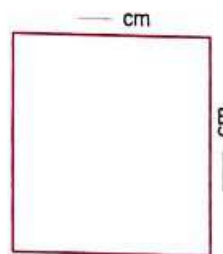
(4) $24 \div 3 =$ _____

d Find the area and the perimeter of each of the following.



Area = _____ square centimeters

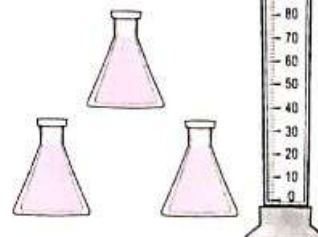
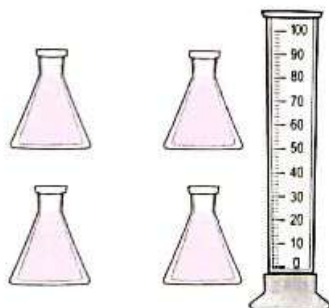
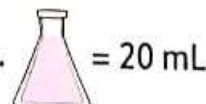
Perimeter = _____ cm



Area = _____ square centimeters

Perimeter = _____ cm

e Color to reach the required measure.



Model

8

1 Choose.

a Forty players are in teams of five. How many teams are there?

☐ $40 + 5$

☐ $40 \div 5$

☐ $40 - 5$

b $\quad \times 5 = 5$

☐ 0

☐ 1

☐ 5

c $\quad = 200$ tens

☐ 2,000

☐ 20

☐ 200

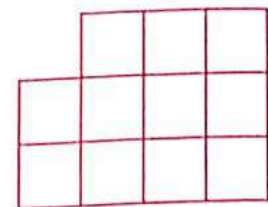
d The area of the opposite figure = \quad



☐ 9

☐ 10

☐ 11



e \quad is a common multiple of 3 and 5

☐ 10

☐ 6

☐ 30

f $4 + 4 + 4 + 4 + 4 = 4 \times \quad$

☐ 4

☐ 5

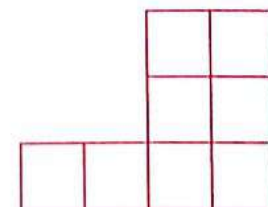
☐ 6

2 Complete.

a $935,429 = \quad + \quad + 5,000 + \quad + \quad + 9$

b $28 \div \quad = 7$

c The perimeter of the opposite figure = \quad units.



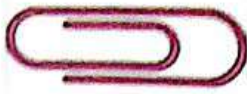
d $70 \text{ mm} = \quad \text{cm}$

e The value of the digit 0 in the number 30,248 is \quad

f $9 \times 7 = \quad$

3 Answer the following.

(a) Measure the length of each object.



mm



mm



mm

(b) Find the result.

(1) $7,850 - 1,700 =$ _____

(2) $354 + 27 + 17 + 833 = (\quad) + (\quad)$
 $=$ _____

(c) Join.

3×8

7×2

3×4

8×0

$20 - 6$

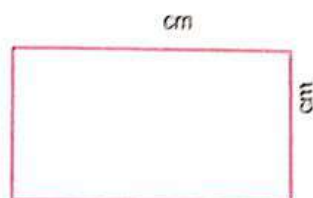
2×6

7×0

4×6

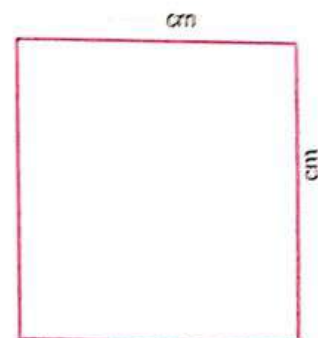
(d) What number will the minute hand point to when 10 minutes have passed? _____

(e) Find the area and the perimeter of each of the following.



Area = _____ square centimeters

Perimeter = _____ cm



Area = _____ square centimeters

Perimeter = _____ cm

Model

9

1 Choose.

a $6 \times \underline{\hspace{2cm}} = 48$

☐ 7

☐ 8

☐ 9

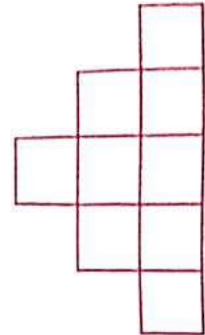
b The area of the opposite figure is $\underline{\hspace{2cm}}$



☐ 9

☐ 12

☐ 15



c $5 \times 300 = \underline{\hspace{2cm}}$ tens

☐ 1,500

☐ 150

☐ 15

d $99 \times 1 \square 99 + 1$

☐ >

☐ <

☐ =

e $50,000 + 700,000 + 3 + 40 + 800 = \underline{\hspace{2cm}}$

☐ 57,348

☐ 843,705

☐ 750,843

f $58 \text{ cm} = \underline{\hspace{2cm}} \text{ mm}$

☐ 58

☐ 580

☐ 5,800

2 Complete.

a The perimeter of the triangle whose side lengths are 4 cm , 5 cm and 8 cm is $\underline{\hspace{2cm}}$ cm

b The trapezium has $\underline{\hspace{2cm}}$ pair(s) of parallel sides and the parallelogram has $\underline{\hspace{2cm}}$ pair(s) of parallel sides.

c The value of the digit 0 in the number 904,526 is $\underline{\hspace{2cm}}$ and its place value is $\underline{\hspace{2cm}}$

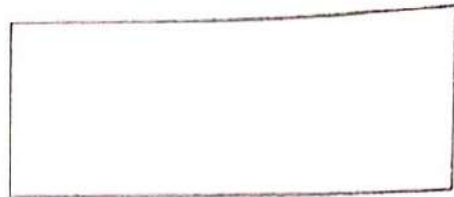
d $7 \times \underline{\hspace{2cm}} = (7 \times 4) + (2 \times 7)$

e $2,590 + 3,628 = \underline{\hspace{2cm}}$

f The factors of 8 are $\underline{\hspace{2cm}}, \underline{\hspace{2cm}}, \underline{\hspace{2cm}}, \underline{\hspace{2cm}}$

3 Answer the following.

(a) Show 5 groups of 4 by drawing circles and dots and find the product.



(b) Find the results.

$$\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$$

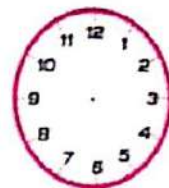
$$\begin{array}{r} 802 \\ - 46 \\ \hline \end{array}$$

(c) Draw a rectangle on the grid of area 20 square units and find its perimeter.



(d) Sarah saw some dogs in a park. She counted 32 legs. How many dogs did Sarah see?

(e) Draw the clock hands, write the time in the digital clock to show the time "quarter to 4"



— : —

(f) Convert the same information from the tally table into a pictograph.

Favorite fruit	
Fruit	Tally
Banana	
Mango	
Apple	
Grapes	

Favorite fruit	
Banana	
Mango	
Apple	
Grapes	

Key



= 2 votes

1 Choose.

a $374,261$ $382,000$

☐ $>$

☐ $<$

☐ $=$

b is a polygon in which each 2 opposite sides are parallel.



c $3 \times$ $= 18$

☐ 5

☐ 6

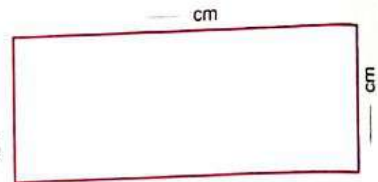
☐ 7

d The area of the opposite figure = square centimeters.

☐ 14

☐ 20

☐ 10



e is a unit to measure capacity.

☐ Kilogram

☐ Meter

☐ Liter

f 12 coins is divided among 4 money boxes, each box has coins.

☐ 2

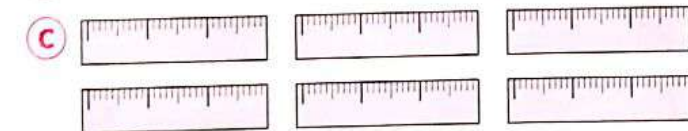
☐ 3

☐ 5

2 Complete.

a cm = 50 mm

b The factors of 10 are , , , .



rows of or columns of

d $30,000 + 70 + 5,000 =$ (in standard form)

e $8 \times 7 =$

f The other fact families of $2 \times 8 = 16$

are



\times $=$

\div $=$

\div $=$

3 Answer the following.

a Complete the table.

Equal groups	Model	Addition sentence	Multiplication sentence
	groups of		
	groups of		

b Find the result.

(1) $7,452 + 9,541 =$

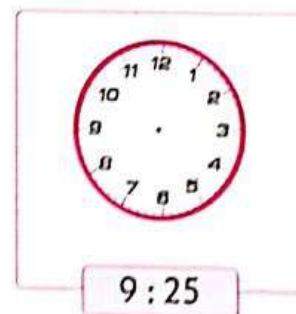
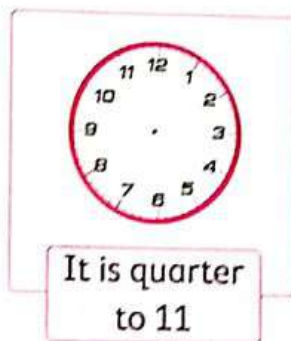
(2) $8,600 - 7,434 =$

(3) $20 \div 5 =$

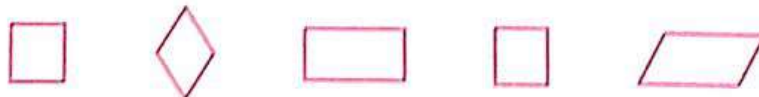
(4) $7 \times 7 =$

(5) $3 \times 70 =$


c Draw the clock hands.



d Circle the shapes that have 4 equal sides and underline the shapes that have 4 similar vertices.

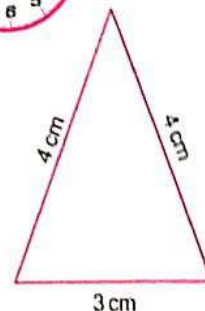


1 Choose.

- a Six thousand , five hundred two in standard form is _____
☐ 6,520 ☐ 6,502 ☐ 6,052
- b $5 \times 9 =$ _____
☐ 35 ☐ 40 ☐ 45
- c The estimated length of the opposite object = _____ 
☐ 10 mm ☐ 10 cm ☐ 10 m
- d $40 \div 5$ 2×4
☐ $>$ ☐ $<$ ☐ $=$
- e $700,000 =$ _____ hundreds
☐ 7,000 ☐ 700 ☐ 70
- f $17 \text{ L} =$ _____ mL
☐ 17 ☐ 1,700 ☐ 17,000

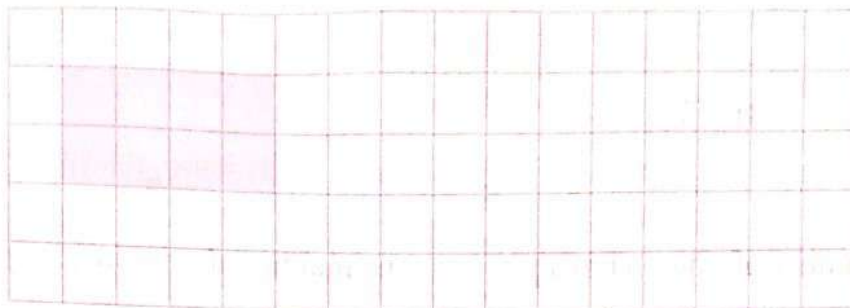
2 Complete.

- a Sarah went to a party at 7:00, the party finished at _____, the time period of the party = _____ minutes.
- b The perimeter of the opposite triangle = _____ cm
- c $500,000 + 40 + 700 =$ _____
- d $0 \times 8 =$ _____
- e Liter is a unit used to measure _____






3 Answer the following.

a Draw a rectangle of the same area of the drawn rectangle in the grid.



b The school library had 7,530 books for borrowing. During one week 2,370 of them were borrowed. How many books were left ?

c Complete the table.

Shape	Name	Number of sides	Number of vertices
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

d Complete the tally table , then answer the questions

- What is the number of children liked blue ? _____
- Which color is liked the most ? _____
- How many more children liked blue than red ? _____

Favorite color		
Color	Tally	Number
Red		_____
Blue		_____
Yellow		_____
Black		_____

Model

12

1 Choose.

(a) 2×4 $81 \div 9$

☐ >

☐ <

☐ =

(b) The number of sides in hexagon the number of sides in octagon.

☐ >

☐ <

☐ =

(c) _____ is a multiple of 7

☐ 12

☐ 14

☐ 16

(d) The value of the digit 6 in the number 726,001 is _____

☐ 600,000

☐ 60,000

☐ 6,000

(e) $8 + 8 + 8 + 8 =$ _____

☐ 8×2

☐ 8×8

☐ 8×4

(f) 500 hundreds = _____ thousands

☐ 5

☐ 50

☐ 500

2 Complete.

(a) $200,000 + 200 + 2 =$ _____ (in standard form)

(b) ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆

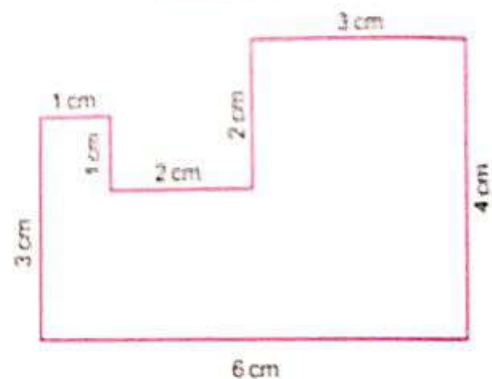
(in the same pattern)

(c) $5 \times 3,000 =$ _____

(d) The digital time which represents "quarter past 7" is _____ :

(e) The perimeter of the opposite figure is _____ cm

(f) $4,546 - 289 =$ _____



3 Answer the following.

- a** Measure the length of the line segment. Complete.

_____ cm, _____ mm

- b** A T.V show ended at 9:00 It lasted for 40 minutes.
What time did the T.V show start ?

Draw the clock hands.




- c** Arrange the following from greatest to least.

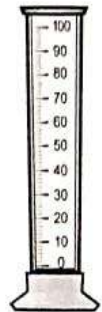
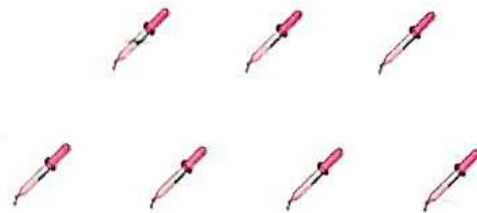
7,000 + 785 - 70,000 + 7,850 - Seven hundred thousand ,
eighty five - 707,850 - 778,500

The order is : _____ , _____ , _____ , _____

- d** Color the graduated cylinder

according to the following

Each  contains 10 mL



- e** Three boxes filled with books were just delivered to the library.
If each box is filled with 325 books.

How many books were delivered ?

- f** Use the line plot to answer the questions.

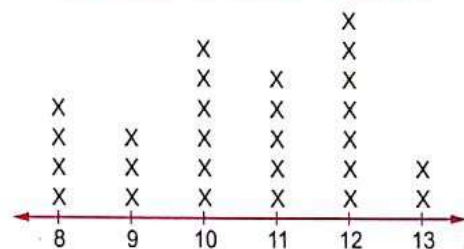
• How many children in the class
are 10 years old ? _____ children.

• What age is the smallest number
of children ? _____ years old.

• How many more children
are 11 years than 13 years ?
_____ children.

• How many children are joining
the music class in all ? _____ children.

Ages of children in music class



key Each x = 1 child